



Appendix 3 – Summary of Existing & Historic Monitoring Data Relevant to the Southeast Coast Inventory & Monitoring Network



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Aquatic Resources

Alabama Rivers Alliance

Aquatic ecosystems
Freshwater ecology
Water quality
Water pollution
Watersheds

Responsible Agency / Park

Non-Profit – Alabama Rivers Alliance

Relevant Parks:

HOBE

Period of Record:

1993 – Present (Ongoing)

Description:

The Alabama Rivers Alliance was formed out of the efforts of its predecessor – the Alabama State Rivers Coalition. The Alabama State Rivers Coalition was formed in 1993 and led by the Cahaba River Society, Alabama Chapter of the Sierra Club, Lake Watch of Lake Martin, Alabama Citizen Action, Friends of the Locust Fork River, and Alabama Environmental Council.

In 1995 the Cahaba River Society hired Brad McLane to serve as the organizer for the Coalition and Policy Director for the Cahaba River Society's state policy programs. After a year of working for the Cahaba River Society, and with the full support and blessing of all Coalition partners, Brad convened the Board of Directors of a new organization for the first time in September 1996. The new Board chose the name of the Alabama Rivers Alliance. Soon thereafter the organization chose its mission, incorporated, developed a strategic plan, and applied for and soon received its 501(c)(3) tax exempt status. Still using the Cahaba River Society as its fiscal sponsor, the fledgling Alabama Rivers Alliance moved into a new office in December of 1996. On July 1, 1997, the Alliance started its first fiscal year operating without fiscal sponsor.

The mission of the Alabama Rivers Alliance is to unite the citizens of Alabama to protect clean, healthy waters. The Alliance works to achieve its mission through three programs: (1) Through its Healthy Rivers Campaign the Alliance supports the creation and advancement of effective watershed protection policies, and their implementation through wise water

and land use management decisions, (2) Through its Alabama Watershed Leadership Program the Alliance works to build, support, and unite a strong network of local watershed guardian organizations in every Alabama watershed, each working to bring about the development and implementation of an effective watershed protection plan, and (3) Through its Watershed Awareness and Research Initiative the Alliance is working to develop an understanding of watershed values, conditions, problems and solutions, and to communicate this understanding to decision-makers and citizens through personal outreach, presentations, publications, a quarterly newsletter, web page, and other means.

Date Last Updated:**Catalog Number:****More Information:**

<http://www.alabamarivers.org/index.htm>

Alabama Water Watch

Bacteria
Benthic Macroinvertebrates
Water Chemistry
Stream Habitat

Responsible Agency / Park:

Alabama Water Watch (AWW) is coordinated through Auburn University's Department of Fisheries and Allied Aquacultures, and the International Center for Aquaculture and Aquatic Environments.

Relevant Parks:

HOBE

Period of Record:

1992 – Present (Ongoing)

Description:

Since the AWW Program began in 1992, nearly 225 citizen groups have become involved with water monitoring on hundreds of waterbodies. Monitors have sampled 1,400 sites on 500 waterbodies and submitted over 25,000 chemistry and 4,000 bacteriological data forms. This water information has had positive impacts on education, restoration and local-to-state water policy.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://www.alabamawaterwatch.org/awwp/aww.htm>

BacteriALERT

E. coli

Responsible Agency / Park:

BacteriALERT is a partnership between State and Federal agencies and non-government organizations. This partnership includes the Georgia Environmental Protection Division, the National Park Service, and the U.S. Geological Survey (USGS) and non-governmental organizations such as the Upper Chattahoochee RiverKeeper, Georgia Conservancy, and Trust for Public Lands.

Relevant Parks:

CHAT

Period of Record:

October 2000 – FY2004 (terminated)

Description:

Because of historically high levels of indicator bacteria in the Chattahoochee River, the concept of a bacteria alert network was proposed as a means to inform people when bacteria levels in the river exceed U.S. Environmental Protection Agency (USEPA) criteria. Thus, a program of bacteria monitoring called BacteriALERT was initiated on the Chattahoochee River within the Chattahoochee River National Recreation Area (CRNRA, National Park Service) in Fall 2000. The CRNRA contains about three-fourths of all public green space in a 10-county area of Metropolitan Atlanta, Georgia. In 1999, the recreation area attracted about 2.9 million visitors with nearly 30 percent of those participating in water-based recreation. Within the area of the bacteria alert network, drinking water and recreation are the designated uses for the Chattahoochee River.

The main objective of this network is to collect and analyze water samples for total coliform and *Escherichia coli* (*E. coli*) bacteria. Results are posted on a publicly-accessible web site within 24 hours of data collection. A second objective is the statistical analysis and interpretation of these data under a wide range of seasonal, weather, and river conditions.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://ga2.er.usgs.gov/bacteria/default.cfm>

Charleston Harbor Project - FOSU

Water Quality

Effects of Dredging

Responsible Agency / Park:

Multi-agency Consortium – Federal, State and Industry

Relevant Parks:

FOSU, FOMO

Period of Record:

Post-1991

Description:

Charleston Harbor is located near and around Charleston, South Carolina. The project areas consist of Charleston estuary and the Ashley, Wando, and Cooper Rivers encompassing 808,000 hectares (2 million acres) of land area.

The Charleston Harbor Project is based on EPA's National Estuary Program guidance. EPA Region IV has provided both technical and management assistance along with monitoring support. The Charleston Harbor Project evolved from a grass-roots effort of the concerned citizens in the Charleston area. Their efforts resulted in 1991 funding approval for a special area management plan implemented through the South Carolina Coastal Council and initial funding from the National Oceanic and Atmospheric Administration.

Four major tasks are being undertaken to identify pollution causes and subsequent management strategies: (1) Water Quality Modeling and Nutrient Dynamics Project, (2) Water Quality Management and Best Management Practices Project, (3) Biological Habitat Project and, (4) Land Planning and Cultural Resource Projects.

Date Last Updated:**Catalog Number:****More Information:**

<http://www.epa.gov/ecoplaces/part2/region4/site10.html>

Sediment Microbial Communities and Mercury Methylation - CONG

Mercury Contamination

Responsible Agency / Park:

US Geological Survey – Water Resources Division

Relevant Parks:

CONG

Period of Record:**Description:**

To develop an understanding of the microbial controls that link atmospheric mercury to the formation of toxic methyl mercury.

Date Last Updated:**Catalog Number:****More Information:**

Celeste Journey: cjourney@gsvaresh01.er.usgs.gov

Florida Department of Agricultural and Consumer Services

Fertilizer Use

Responsible Agency / Park

FDACS

Relevant Parks:

TIMU, FOCA, CASA, CANA

Period of Record:

1997-2003

Description:

The mission of the Department of Agriculture and Consumer Services (FDACS) is to safeguard the public and support Florida's agricultural economy by: (1) Ensuring the safety and wholesomeness of food and other consumer products through inspection and testing programs; (2) Protecting consumers from unfair and deceptive business practices and providing consumer information; (3) Assisting Florida's farmers and agricultural industries with the production and promotion of agricultural products; and (4) Conserving and protecting the state's agricultural and natural resources by reducing wildfires, promoting environmentally safe agricultural practices, and managing public lands.

Date Last Updated:

2003

Catalog Number:**More Information:**

<http://www.flaes.org/>

Florida Department of Environmental Protection (FDEP) STORET

Water Quality

Responsible Agency / Park

FDEP

Relevant Parks:

TIMU, FOCA, CASA, CANA

Period of Record:

Ongoing

Description:

The DEP STORET warehouse contains all of the water quality, biological, and physical data collected in Florida that is loaded to the U.S. Environmental Protection Agency's (EPA's) Modernized STORET database. This website allows you to retrieve data from the warehouse and download as a text file or display it on a map. This website allows you to dynamically query the STORET data warehouse by station, stations by map, or by aspects of water quality.

Date Last Updated:**Catalog Number:****More Information:**

<http://www.dep.state.fl.us/water/monitoring/data.htm>

Florida Stream Condition Index

Benthic Macroinvertebrates

Responsible Agency:

Florida Department of Environmental Protection

Relevant Parks:

TIMU, FOCA, FOMA, CANA

Period of Record:

1998 – Present (ongoing)

Description:

The Stream Condition Index (SCI) is a composite macroinvertebrate metric for use in flowing streams. Sampling consists of 20 sweeps of the most productive habitats found in a 100-meter stretch of stream using a dip net. Organisms collected are brought back to the laboratory for identification. The

SCI assigns points to seven biological metrics to rate a site as excellent, good, poor, or severely degraded. The scoring system is calibrated to be regionally specific for three bioregions in Florida, the panhandle, peninsula, and northeast.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://www.dep.state.fl.us/water/bioassess/flupdate.htm>

Florida BioRecon

Benthic Macroinvertebrates

Responsible Agency / Park:

Florida Department of Environmental Protection

Relevant Parks:

TIMU, FOCA, FOMA, CANA

Period of Record:

1998 – Present (ongoing)

Description:

BioRecon is the screening tool version of the SCI. Only four dip-net sweeps of the most productive habitats are sampled, and the organisms are sorted in the field and identified in the laboratory. Thresholds specific to this method have been established. If a site exceeds the threshold in two out of the three metrics calculated (a subset of the seven metrics used in the SCI), the site is considered healthy.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://www.dep.state.fl.us/water/bioassess/flupdate.htm>

Georgia Adopt-A-Stream

Benthic Macroinvertebrates

Responsible Agency / Park:

Georgia Department of Natural Resources

Relevant Parks:

KEMO, CHAT, OCMU, FOFR, CUIS, FOPU

Period of Record:

Unknown

Description:

Georgia Adopt-A-Stream (AAS) is housed in the Non-point Source Program in the Water Protection

Branch of the Georgia Environmental Protection Division. The program is funded by a Section 319(h) Grant. The goals of Georgia Adopt-A-Stream are to (1) increase public awareness of the State's non-point source pollution and water quality issues, (2) provide citizens with the tools and training to evaluate and protect their local waterways, (3) encourage partnerships between citizens and their local government, and (4) collect quality baseline water quality data.

To accomplish these goals, Georgia Adopt-A-Stream encourages individuals and communities to monitor and/or improve sections of streams, wetlands, lakes or estuaries. Manuals, training, and technical support are provided through Georgia EPD, five Adopt-A-Stream Regional Training Centers and more than 40 established Community/Watershed Adopt-A-Stream organizers. The Adopt-A-Stream and Wetland Regional Training Centers are located at State Universities in Columbus, Milledgeville, Americus, Valdosta and Savannah. These centers play a key role in providing training, technical support and organizational support to citizens throughout Georgia.

There are more than 40 Community/Watershed Programs that organize Adopt-A-Stream groups in their watershed, county or city. These local Adopt-A-Stream programs are funded by counties, cities and nonprofit organizations and use the Georgia Adopt-A-Stream model, manuals and workshops to promote nonpoint source pollution education and data collection in their area. The State office works closely with these programs to ensure that volunteers are receiving appropriate support and training.

The Adopt-A-Stream program offers different levels of involvement. At the most basic level, a new group informs their local government about their activities and creates partnerships with local schools, businesses and government agencies. A watershed survey and 4 visual surveys are conducted within a year's time. Volunteers create a "Who To Call List" so that if something unusual is sighted, the appropriate agencies can be notified. *Getting To Know Your Watershed* and *Visual Stream Survey* manuals provide guidance in these activities.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://www.riversalive.org/aas.htm>

Georgia Department of Natural Resources (GADNR), Environmental Protection Division

Water Quality

Watershed Management Plans

305(d)/303(b) GIS Data

Responsible Agency / Park

GADNR

Relevant Parks:

CHAT, CUIS, FOFR, FOPU, KEMO

Period of Record:

1997-2004

Description:

The Georgia Environmental Protection Division helps provide Georgia's citizens with clean air, clean water, healthy lives and productive land by assuring compliance with environmental laws and by assisting others to do their part for a better environment.

Date Last Updated:

2004

Catalog Number:**More Information:**

http://www.dnr.state.ga.us/dnr/environ/gaenviron_files/gaenviro.htm#waterqual

USDI National Park Service

Baseline Water Quality

Responsible Agency / Park

National Park Service

Relevant Parks:

CAHA, CALO, CANA, CASA, CONG, CUIS, FOFR, FOMA, FOPU, FOSU, HOBE, KEMO, MOCR, OCMU, TIMU

Period of Record:

Varies by Park

Description:

A cooperative endeavor initiated in 1993 by the NPS Water Resources Division (WRD) and the Servicewide Inventory and Monitoring Program, the NPS Baseline Water Quality Data Inventory and Analysis Project is an effort designed to characterize baseline water quality at all units of the National Park System containing significant natural resources. The goal of this effort is to provide descriptive water

quality information to every national park unit in a format usable for park planning and management.

Specific objectives of the project are to: (1) retrieve water quality and related data from the Environmental Protection Agency's (EPA) STORET and other database systems; (2) develop a complete inventory of all retrieved data; (3) produce descriptive statistics and appropriate box and whiskers and time series plots of the water quality data to characterize annual, seasonal, and period of record central tendencies and trends; (4) compare park water quality data with relevant EPA national water quality criteria on a station by station basis; and (5) reformat the water quality and other related data for use with the park-based Water Quality Data Management System (currently under development in the WRD) and other appropriate analytical tools. Every park unit participating in this project will receive a detailed analog report and several hydrographic digital databases, including: (1) all water quality parameter data; (2) 1:100,000 scale hydrography; (3) surface-water quality monitoring station locations; (4) stream gage locations; (5) National Pollutant Discharge Elimination System permit locations; and (6) drinking water intake locations.

Date Last Updated:

1993

Catalog Number:**More Information:**

<http://www1.nrintra.nps.gov/wrd/quality/horizon.htm>

<http://www1.nrintra.nps.gov/wrd/miscfiles/horizon.htm>

National Water Quality Assessment Program

Water Chemistry / Quality

Benthic Macroinvertebrates

Stream Habitat

Fish

Algae

Responsible Agency / Park:

U.S. Geological Survey

Relevant Parks:

All SECN Parks except FOPU and MOCR.

Period of Record:

1991 – Present (Ongoing)

Description:

The overall goals of the National Water Quality Assessment (NAWQA) Program are to (1) describe current water-quality conditions for a large part of the Nation's freshwater streams and aquifers, (2) describe how water quality is changing over time, and (3) improve our understanding of the primary natural and human factors affecting the water quality.

Network parks fall into five NAWQA study units:

Mobile River Basin: Among the issues addressed by the Program are nutrient enrichment from human and animal wastes and runoff from residential and commercial development and agricultural lands, which ultimately affects the health of the estuarine environments and fisheries in Mobile Bay and Gulf of Mexico. In addition, the Alabama studies address increased sedimentation and pesticide concentrations from the agricultural, industrial, and urban activities, as well as degradation of the riparian habitats and their subsequent impacts on aquatic life and water quality.

Apalachicola-Chattahoochee-Flint River Basin:

Among the issues addressed by the Program are bacteria, nutrients, pesticides, and emerging contaminants in urban streams from wastewater discharges, combined and sanitary sewer overflows, and nonpoint source runoff. In addition, the Georgia studies address effects of agriculture on the quality of ground water and surface water, including effects associated with the high production rates of broilers (chickens), such as elevated phosphorus.

Georgia-Florida Coastal Plain Drainages: Water quality and aquatic life have been degraded by drainage, development, alteration of water flows, contamination from agricultural and urban runoff, and continuing invasions of exotic species. Among the issues addressed by the Program are the accumulation of mercury and other toxic compounds in sediment and fish, elevated nitrate and phosphorus from agricultural and urban lands, and the frequent occurrence of pesticides and volatile organic compounds in the ground water and streams.

Santee River Basin & Coastal Drainages: Among the issues addressed by the Program are bacteria, nutrients, pesticides, volatile organic compounds, and emerging contaminants in ground water and streams throughout the Basin and in and around

major urban centers. In addition, the South Carolina studies address effects of agriculture on the quality of ground water and surface water; the presence of radon in major drinking water supply aquifers; accumulation of mercury, PCBs, DDT, and other organochlorine compounds in sediment and fish; and documentation of habitat characteristics and biological community structures.

Albemarle-Pamlico Drainages: Among the issues addressed by the NAWQA Program are increased nutrients and bacteria resulting from increasing confined-animal populations; elevated nutrients and mixtures of pesticides from intensive row-crop production; effects of elevated phosphorus and nitrogen on stream eutrophication; effects of rapid urbanization in Raleigh on concentrations of nutrients, pesticides, volatile organic compounds, trace elements, and aquatic life; and mercury and its resulting accumulation in stream ecosystems.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://water.usgs.gov/nawqa/>

<http://www.ga.usgs.gov/nawqa/>

<http://al.water.usgs.gov/pubs/mobl/mobl.html>

<http://fl.water.usgs.gov/Gafl/gafl.html>

<http://sc.water.usgs.gov/nawqa/>

<http://nc.water.usgs.gov/albe/>

http://infotrek.er.usgs.gov/servlet/page?_pageid=543&_dad=portal30&_schema=PORTAL30

North Carolina Department of Environment and Natural Resources (NCDENR), Division of Water Quality

305 (b) and 303 (d) Waters

Fish Kills

Responsible Agency / Park

NCDENR

Relevant Parks:

CAHA, CALO, FORA, MOCR, WRBR

Period of Record:

2000-2004

Description:

The North Carolina Division of Water Quality (DWQ) in the NCDENR is the agency responsible for statewide regulatory programs in groundwater and surface water protection. DWQ's mission is to preserve, protect and enhance North Carolina's water and groundwater resources through quality monitoring programs, efficient permitting, responsible management, fair and effective enforcement and excellence in public service. The agency, with central offices in Raleigh and seven regional offices located across the state, issues pollution control permits, monitors permit compliance, evaluates environmental quality and carries out enforcement actions for violations of environmental regulations.

The division, composed of five sections (Water Quality, Groundwater, Construction Grants & Loans, Laboratory, and the Wetlands Restoration Program) administers the policies and rules established by the state's Environmental Management Commission (EMC). These policies and rules are designed to support the division in its resource protection, management and regulatory efforts.

Date Last Updated:

2004

Catalog Number:**More Information:**

http://h2o.enr.state.nc.us/tmdl/General_303d.htm#Downloads

<http://www.esb.enr.state.nc.us/Fishkill/fishkillmain.htm>

North Carolina Stream Bioassessment

Fish Communities

Fish Tissue

Benthic Macroinvertebrates

Responsible Agency / Park:

North Carolina Department of Environment and Natural Resources – Division of Water Quality

Relevant Parks:

MOCR (maybe CALO & OBXG)

Period of Record:

Early 1990s – Present (Ongoing)

Description:

The North Carolina Index of Biological Integrity is used in wadeable streams and incorporates information about species richness and composition,

trophic composition, fish abundance, and fish condition. The NCIBI summarizes the effects of all classes of factors influencing aquatic faunal communities such as water quality, energy source, habitat quality, flow regime, and biotic interactions. While any change in a fish community can be caused by many factors, certain aspects of the community are generally more responsive to specific influences. Species composition measurements reflect habitat quality effects. Information on trophic composition reflects the effect of biotic interactions and energy supply. Fish abundance and condition information indicates additional water quality effects. It should be noted, however, that these responses may overlap. For example, a change in fish abundance may be due to decreased energy supply or a decline in habitat quality, not necessarily a change in water quality.

Benthic macroinvertebrates, especially aquatic insects, are associated with the substrates of streams, rivers and lakes. The Biological Assessment Unit uses aquatic macroinvertebrates as one type of indicator of biological integrity in streams and rivers. A large number of sites are sampled each year during basin-wide sampling and special studies, and resulting information is used to document both spatial and temporal changes in water quality, and to complement water chemistry analyses. Although bioassessments are useful for identifying biological impairments, they do not identify the causes of impairment.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://www.esb.enr.state.nc.us/BAU.html>

South Carolina Department of Health and Environmental Control (SCDHEC), Bureau of Water

Water Quality

Responsible Agency / Park

SCDHEC

Relevant Parks:

CONG, FOSU, FOMO, CHPI

Period of Record:

Varies

Description:

The SCDEHC In 1991 the Bureau of Water of the SCDHEC implemented the Watershed Water Quality Management Strategy in order to more efficiently protect and improve the quality of South Carolina's surface water resources. This management strategy recognizes the interdependence of water quality and all the activities that occur in the associated drainage basin. Under the watershed management approach monitoring, assessment, problem identification and prioritization, water quality modeling, planning, permitting and other SCDHEC initiatives are coordinated by basin. A watershed water quality assessment document is produced for each basin.

All water quality data generated by SCDEHC monitoring programs have been uploaded into the EPA STORET database.

Date Last Updated:

2004

Catalog Number:**More Information:**

Although no data are available, several publications are available for download:

<http://www.scdhec.net/water/shed/home.html>

<http://www.scdhec.gov/eqc/admin/html/eqcpubs.html#Water>

<http://www.scdhec.net/water/html/monitoring.html>

<http://www.scdhec.net/water/html/wpcpage.html>

St. John's Water Management District (SJWMD)

Water Quality

Responsible Agency / Park

SJWMD

Relevant Parks:

CANA, CASA, FOCA, FOMA, TIMU

Period of Record:

Varies

Description:

The surface water quality monitoring program of the SJWMD, established in 1983, maintains an ambient surface water quality monitoring network of 72 stations located throughout the District. Fourteen of these stations are a part of the Florida Department of Environmental Protection's (FDEP) Temporal Variability (TV) Network and are sampled twelve

times per year. The remaining 58 stations are sampled six times per year. Monitoring of sediments for priority pollutants was added to the program in 1990, followed by benthic (underwater bottom) community sampling in 1999 to enhance understanding of the biological consequences of sediment pollution.

Data generated under the program are uploaded to the U.S. Environmental Protection Agency's (EPA) National Water Quality Data Base (STORET) and used by FDEP for Florida's biennial 305(b) report. The program provides support for modeling efforts involving surface water quality and produces a biennial district-wide assessment of surface water quality status and trends, and sediment, benthic, and other assessments. This program also participates in FDEP's Integrated Water Resources Monitoring (IWRM) Tier 1 Network.

Date Last Updated:

2004

Catalog Number:**More Information:**

Although no data are available, several publications are available for download:

<http://sjr.state.fl.us/programs/outreach/pubs/techpubs/tpubs1.html#sj20043>

http://sjr.state.fl.us/programs/outreach/local_gov/map_atlas/map_atlas.html

http://sjr.state.fl.us/programs/plan_monitor/sw_monitor/overview.html

<http://sjr.state.fl.us/programs/data.html>

Groundwater Monitoring

Groundwater Level

Water Chemistry

Salinity

Responsible Agency / Park:

U.S. Geological Survey

Relevant Parks:

CONG (13 active wells on site)

FOPU (two active wells on site)

Period of Record:

Unknown

Description:

Date Last Updated:

Unknown

Catalog Number:**More Information:****US Geological Survey, Ground Water – Climate Response Network**

Groundwater Quality

Responsible Agency / Park:

USGS, Ground Water – Climate Response Network

Relevant Parks:

Parks Listed with monitoring wells in the vicinity:

HOBE – Site K107 MTG-3

KEMO, CHAT – Site 11FF04 Doraville

OCMU: 21T001

CAHA/WRBR/FORA: Site NC-195 (Elizabeth City)

Period of Record:

Varied depending on monitoring well.

Description:

The USGS maintains a network of wells to monitor the effects of droughts and other climate variability on ground-water levels. The network consists of a national network of about 150 wells monitored as part of the Ground Water Resources Program, supplemented by wells in some States monitored as part of the Cooperative Water Program.

There are three types of data available from wells measured by the USGS:

Periodic data: which are ground-water levels measured manually at selected intervals, usually with a steel or electric tape. These measurements typically are made from once per week to once per year.

Continuous data: which are ground-water levels measured by an automatic sensing device, recorded by data loggers, and retrieved periodically from the field. The availability of these data may lag current conditions by one to several months because they must be retrieved from the field, processed, and loaded into the database.

Real-time data: which are continuous data that are transmitted from the field to the USGS at least once per day. Barring occasional equipment malfunctions, these data reflect current ground-water conditions at the well.

Date Last Updated:

Unknown

Catalog Number:**More Information:**<http://groundwaterwatch.usgs.gov/>**US Geological Survey – Water Resources Division**

Stream Flow

Surface Water Discharge

Surface – Groundwater interactions

Responsible Agency / Park:

U.S. Geological Survey – Water Resources Division

Relevant Parks:

CONG

Period of Record:

Station 02169625: 1987; 1994 – present

Station 02169672: 1981-83; 1986; 1993 - present

Description:

USGS gauging stations 02169660 and 02169672 are within the boundary of Congaree National Park. In addition, USGS – WRD is working to quantify the influence of the Saluda Dam on the frequency and magnitude of flooding at Congaree National Park, relative to surface and groundwater interactions.

Date Last Updated:

Unknown

Catalog Number:**More Information:**Larry Harrelson – lgharrel@usgs.govToby Feaster – tfeaster@usgs.gov**North Carolina Department of Environment and Natural Resources, Division of Water Quality**

Water Quality (Surface and Groundwater)

Responsible Agency / Park:

NC Department of Environment and Natural Resources, Division of Water Quality

Relevant Parks:

CAHA, FORA, WRBR, CALO, MOCR

Period of Record:

Variable, depending on dataset

Description:

The North Carolina Division of Water Quality (DWQ) in the Department of Environment and

Natural Resources is the agency responsible for statewide regulatory programs in groundwater and surface water protection. DWQ's mission is to preserve, protect and enhance North Carolina's water and groundwater resources through quality monitoring programs, efficient permitting, responsible management, fair and effective enforcement and excellence in public service. The agency, with central offices in Raleigh and seven regional offices located across the state, issues pollution control permits, monitors permit compliance, evaluates environmental quality and carries out enforcement actions for violations of environmental regulations.

The DWQ offers many surface and ground water quality related publications and datasets. This information includes, but is not limited to: basin-wide assessments of water quality, state 303d and 305b reports, Basin-wide Information Management System (BIMS) that tracks point-source discharge, non-point source pollution, state geology maps, groundwater recharge maps, rainfall data etc.

Date Last Updated:

Unknown

Catalog Number:

More Information:

Home: <http://h2o.enr.state.nc.us/#DOCSRULES>

Download:

<http://h2o.enr.state.nc.us/wqs/index.html#DOCUMENTS>

Groundwater:

http://www.ncwater.org/Data_and_Modeling/Ground_Water_Databases/

Benthic Macroinvertebrates:

<http://www.esb.enr.state.nc.us/BAUwww/benthicbasins.htm>

SC Department of Health and Environmental Control (SCDHEC)

Water Quality

Responsible Agency / Park:

South Carolina Department of Health & Environmental Control

Relevant Parks:

CONG

Period of Record:

Description:

One (maybe two) permanent monitoring sites on the Park.

Date Last Updated:

Unknown

Catalog Number:

More Information:

University of North Carolina Aquatic Ecology Research Projects

Water Quality

Non-point Source Pollutants

Phytoplankton

Benthic Macroinvertebrates

Marine Water Quality

Tides

Storm Water Management

Pfiesteria

Responsible Agency / Park:

University of North Carolina

Relevant Parks:

CAHA, WRBR, FORA, CALO, MOCR

Period of Record:

Variable depending on the data set.

Description:

This website has links to ten UNC research projects. To follow is a brief description of each project.

The Lower Cape Fear River Program: Since 1995 data have been collected regularly on numerous physical, chemical and biological parameters at 35 locations. The data are sent to the North Carolina Division of Water Quality and entered into the EPA STORET national water quality database. Comprehensive reports are issued to interested parties annually. Current and recent research projects in this watershed include analysis of animal waste lagoon spills, effects of hurricanes and storms on water quality, factors controlling phytoplankton production in the estuary and tributary rivers, factors contributing to BOD loads in the Cape Fear watershed, and the effect of nutrient loading on the biota and metabolism of blackwater streams. In conjunction with the water quality sampling, benthos is analyzed by the UNCW Benthic Ecology Lab and

finfish research is carried out by UNCW researcher Dr. Tom Lankford.

The Coastal Ocean Research and Monitoring Project:

In January 2000, several researchers from UNCW began a broad scale analysis of the coastal ocean adjacent to southeastern North Carolina, the South Atlantic Bight. The South Atlantic Bight supports a variety of important resources and uses including hydrocarbons, hard minerals, fisheries, protected species, recreation, navigation and cultural resources. Two major areas in the South Atlantic Bight will be studied including Onslow Bay and the Cape Fear River Plume.

The New Hanover County Tidal Creeks Project:

Since 1993 research has been conducted on bacterial pollution, algal blooms, effect of tides on water quality parameters, nutrient limitation of phytoplankton productivity, and nutrient loading in five tidal creeks in New Hanover County, with annual reports regularly published. A major accomplishment of this project has been publication of a set of management recommendations for environmentally-sound coastal development practices.

City of Wilmington Watersheds Project: In autumn 1997 a project assessing water quality in each of the City of Wilmington's watersheds was initiated. This includes collecting baseline data on pollutants such as nutrients, fecal coliform bacteria, turbidity, and other parameters, analyzing effectiveness of large stormwater detention ponds, runoff from golf courses, and effect of loadings on adjacent waterways. Current efforts also include detection of illicit sewer discharges to the stormwater system, and a comprehensive study of nutrients, BOD and algal blooms in Greenfield Lake.

Carolina Beach Stormwater Project: In May 2003 the UNCW Aquatic Ecology Laboratory began assessing the water quality of the lake and the network of major surface runoff ditches in the town. Pollutants being examined are biochemical oxygen demand (BOD), fecal coliform bacteria, nutrients, chlorophyll a, turbidity, conductivity/salinity, and dissolved oxygen. The UNCW Benthic Ecology Laboratory is also collaborating by assessing the fish community in Carolina Beach Lake.

Bald Head Creek Environmental Analysis: The Village of Bald Head has applied for a permit to dredge the mouth of Bald Head Creek in order to

improve shellfishing water quality. The Aquatic Ecology Laboratory has initiated a program to collect pre-dredging and post-dredging water quality data to analyze the success of this estuarine manipulation project. Data being collected include fecal coliform bacteria, nitrate, phosphate, ammonium, chlorophyll a, total suspended solids, turbidity, dissolved oxygen, temperature, and salinity. Physical parameters are collected both on site during water sample collection and on a high-frequency basis through diel studies with in-situ instruments. Because Bald Head Creek has a low level of human development surrounding it, the project location makes an excellent contrast to the highly developed tidal creeks being studied under the New Hanover Tidal Creeks Project.

Ecology of the New River Estuary: This is an ongoing research project studying water quality, algal bloom formation, and nutrient limitation in the New River Estuary, North Carolina. Published are results of the damage caused by a major swine waste spill to the New River and its estuary, also results of nutrient limitation experiments in the estuary.

Field Conditions for *Pfiesteria* growth: This is a coordinated effort with the North Carolina State University Center for Applied Aquatic Ecology to characterize field conditions supporting the growth of the toxic dinoflagellate *Pfiesteria piscicida* in the New River Estuary, the New Hanover County Tidal Creeks system, and the Cape Fear River Estuary.

Assessing the Relationship Between Phosphorus and

Fecal Microbes in Blackwater Stream Sediments: In collaboration with Dr. Larry Cahoon of the UNCW Biological Sciences Department, a study of the sediments of blackwater streams in the Cape Fear River basin is being conducted. In this project, the primary goal is to assess the ability of these stream sediments to serve as a reserve and potential incubator for fecal pathogen indicator organisms, particularly in terms of sediment nutrient content. These streams receive nutrient loading and potentially fecal pathogens from concentrated animal feeding operations (CAFOs), yet are utilized for recreation by the public.

Assessment of Coastal Water Resources and

Watershed Conditions in Southeast Atlantic Coast National Parks: In a collaborative effort with Dr. Merryl Alber of the University of Georgia, assessment of the coastal and freshwater resources of Cape Hatteras, Cape Lookout, and Cumberland

Island National Seashores has been initiated. Present and future water quality, as well as the potential impacts of human infrastructure both within and outside of the Parks will be analyzed, with recommendations made for management.

Date Last Updated:

Variable depending on the program / data set.

Catalog Number:

More Information:

<http://www.uncw.edu/cmsr/aquaticceology/Laboratory/research.htm>

University of North Carolina at Wilmington (UNCW), Center for Marine Science

Water Quality

Benthic Macroinvertebrates

Responsible Agency / Park

UNCW

Relevant Parks:

MOCR

Period of Record:

Description:

The UNCW Center for Marine Science is dedicated to providing an environment that fosters a multidisciplinary approach to questions in basic marine research. The mission of the center is to promote basic and applied research in the fields of oceanography, coastal and wetland studies, marine biomedical and environmental physiology, and marine biotechnology and aquaculture. Faculty members conduct marine science research in the departments of biological sciences, chemistry and earth sciences participate in this program. The center fosters research programs of the highest quality and thereby enhances the educational experience provided by The University of North Carolina at Wilmington for both undergraduate and graduate students in marine science

Since 1995 the UNCW Marine Science Center's laboratory has regularly collected data on numerous physical, chemical and biological parameters at 35 locations throughout the Cape Fear River watershed (Lower Cape Fear River Program). Data are sent to the North Carolina Division of Water Quality where they are entered into the EPA STORET national water quality database. Comprehensive reports are

issued to interested parties annually. Current and recent research projects in this watershed include analysis of animal waste lagoon spills, effects of hurricanes and storms on water quality, factors controlling phytoplankton production in the estuary and tributary rivers, factors contributing to BOD loads in the Cape Fear watershed, and the effect of nutrient loading on the biota and metabolism of blackwater streams. In conjunction with the water quality sampling, benthos is analyzed by the UNCW Benthic Ecology Lab and finfish research is carried out by UNCW researcher Dr. Tom Lankford.

As part of the Cape Fear River Program, the UNCW Benthic Ecology Lab examines trophic dynamics and anthropogenic impacts in the Cape Fear River. Specifically, we examine seasonal benthic infaunal composition and abundance at several subtidal stations along the lower Cape Fear River and in the lower Northeast Cape Fear.

Additionally, samples of epibenthic organisms, such as juvenile fish, mysid shrimp, and crabs are collected using epibenthic sled tows. This data allows for examination of timing and magnitude of recruitment events, and establishment of baselines to understand causality of changes in the river. Recently this data has been useful in determining the impact of large scale events such as hurricanes and chronic problems such as pollution inputs. Results to date indicate the benthic communities in the Cape Fear River estuary have high resistance and resilience to disturbance. However, there are some sites that indicate loss of species richness over the last four years. While this trend may be due in part to repeated natural disturbance events it is an area we will watch closely to see if the trend continues. The data collected for this project has been made available to concerned industries, as well as state agencies, to assist in improving resource management practices. This project expands our understanding of trophic linkages and controls within the estuary.

Water quality data are available for STORET. Benthic macroinvertebrate data are not available, however, contacts and a publication list are.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://www.uncwil.edu/cmsr/aquaticceology/Laboratory/research.htm>

<http://www.uncwil.edu/cmsr/benthic/>

**US Environmental Protection Agency –
Environmental Monitoring and Assessment
Program (EMAP)**

Benthic Invertebrates
Demersal Trawl
Sediment
Water Quality

Responsible Agency / Park

EPA – EMAP

Relevant Parks:

All SECN Parks

Period of Record:

1984-Present

Description:

EMAP is a research program to develop the tools necessary to monitor and assess the status and trends of national ecological resources. EMAP's goal is to develop the scientific understanding for translating environmental monitoring data from multiple spatial and temporal scales into assessments of current ecological condition and forecasts of future risks to our natural resources.

EMAP aims to advance the science of ecological monitoring and ecological risk assessment, guide national monitoring with improved scientific understanding of ecosystem integrity and dynamics, and demonstrate multi-agency monitoring through large regional projects. EMAP develops indicators to monitor the condition of ecological resources. EMAP also investigates designs that address the acquisition, aggregation, and analysis of multiscale and multitier data.

Date Last Updated:

2001

Catalog Number:**More Information:**

<http://www.epa.gov/emap/index.html>

<http://www.epa.gov/emap/html/status.html>

US Environmental Protection Agency, STORET

Water Quality

Responsible Agency / Park

EPA

Relevant Parks:

All SECN Parks

Period of Record:

Varies-Present

Description:

The U.S. Environmental Protection Agency (EPA) maintains two data management systems containing water quality information for the nation's waters: the Legacy Data Center (LDC), and STORET. The LDC is a static, archived database and STORET is an operational system actively being populated with water quality data.

STORET (short for STORage and RETrieval) is a repository for water quality, biological, and physical data and is used by state environmental agencies, EPA and other federal agencies, universities, private citizens, and many others.

The LDC contains historical water quality data dating back to the early part of the 20th century and collected up to the end of 1998. STORET contains data collected beginning in 1999, along with older data that has been properly documented and migrated from the LDC. Both systems contain raw biological, chemical, and physical data on surface and ground water collected by federal, state and local agencies, Indian Tribes, volunteer groups, academics, and others. All 50 States, territories, and jurisdictions of the U.S. are represented in these systems.

Each sampling result in the LDC and in STORET is accompanied by information on where the sample was taken (latitude, longitude, state, county, Hydrologic Unit Code and a brief site identification), when the sample was gathered, the medium sampled (e.g., water, sediment, fish tissue), and the name of the organization that sponsored the monitoring. In addition, STORET contains information on why the data were gathered; sampling and analytical methods used; the laboratory used to analyze the samples; the quality control checks used when sampling, handling the samples, and analyzing the data; and the personnel responsible for the data. The main database concepts of STORET follow the business of water quality monitoring.

Date Last Updated:

2004

Catalog Number:**More Information:**

<http://www.epa.gov/STORET/dbtop.html>

US Geological Survey – Water Resources Division

Water Quality

Responsible Agency / Park

USGS

Relevant Parks:

All SECN Parks

Period of Record:

Varies-Present

Description:

The USGS collects and analyzes chemical, physical, and biological properties of water, sediment and tissue samples from across the Nation. The NWISWeb discrete sample data base is a compilation of over 4.2 million historical water quality analyses in the USGS district data bases through September 2003. The discrete sample data is a large and complex set of data that has been collected by a variety of projects ranging from national programs to studies in small watersheds. Users should review the help notes and particularly the Data retrieval precautions before beginning any retrieval or analysis of data from this data set. Additions of more current data, modifications to ancillary information, and enhanced retrieval options to help users find and appropriately use the data they need are planned for a future release of NWISWeb.

At selected surface-water and ground-water sites, the USGS maintains instruments that continuously record physical and chemical characteristics of the water including pH, specific conductance, temperature, dissolved oxygen, and percent dissolved-oxygen saturation. Supporting data such as air temperature and barometric pressure are also available at some sites. At sites where this information is transmitted automatically, data are available from the real-time data system.

Date Last Updated:

2004

Catalog Number:**More Information:**

<http://waterdata.usgs.gov/nwis/qw>

Drinking Water Monitoring - CUIS

Drinking Water Quality

Responsible Agency / Park**Relevant Parks:**

CUIS

Period of Record:**Description:****Date Last Updated:****Catalog Number:****More Information:****National Coastal Assessment Program**

Water Quality

Responsible Agency / Park

US Environmental Protection Agency

Relevant Parks:

SECN Coastal Parks

Period of Record:**Description:**

Formerly known as the National Environmental Monitoring and Assessment Program (EMAP), the National Coastal Assessment Program was created in 1988 by the U.S. EPA in cooperation with other federal agencies to provide basic answers relating to environmental problems impacting the Nations ecological resources. Similar to the freshwater EMAP sampling protocol, Coastal EMAP applies a similar probability-based study design on regional scales to address many coastal resource related issues.

The objectives of this project are to estimate geographic extent of the nations ecological resources, to estimate current status, trends, and changes in the environmental condition of those resources, to seek association between natural and anthropogenic stresses and the condition of ecological resources and to provide annual statistical summaries and periodic assessments of the Nations ecological resources

The National Coastal Assessment (NCA) Program is designed to be a five-year effort of data collection and compilation to be done in July and August. The NCA Program sampling design focuses on characterizing broad spatial differences in selected indicators. Environmental indicators are selected based on 1) their responsiveness to environmental problems (such as pollution or nutrient enrichment, 2) the ease of measurability, and 3) how representative they are of the area being sampled.

Date Last Updated:

Catalog Number:

More Information:

Beach Water Quality Monitoring - CUIS

Beach Water Quality

Responsible Agency / Park

US Environmental Protection Agency
GA Department of Natural Resources

Relevant Parks:

CUIS

Period of Record:

Description:

Each year tens of millions of people are drawn to the beaches to enjoy the beauty and the recreational activities they provide. Unfortunately, water pollution continues to degrade the quality and health of many of our nation's ocean, bay and Great Lakes beaches. The public's concern regarding the safety of swimming at their local beaches has led many to limit or even stop their use of certain beaches. Until sources of beach water pollution can be eliminated, monitoring is the best way to protect swimmers and surfers from polluted water.

The Beach Water Quality pages of Earth 911 deliver up-to-date, community-specific water quality information that enables the public to make informed decisions about the relative safety of swimming at their local beaches. The initial pilot project was intended to partially fulfill the EPA's mission of protecting human health, reducing risks associated with pollutants, and maintaining beneficial uses of water bodies by providing public access to shoreline

bacteriology information collected at beaches by a variety of public agencies.

Date Last Updated:

Catalog Number:

More Information:

<http://georgia.earth911.org/usa/WaterQuality/default.asp?cluster=2>

Duval County, Environmental Resource Management, Environmental Quality Division

Water Quality

Stormwater Management

Wastewater Permitting and Management

Responsible Agency / Park:

Duval County, FL - Duval County, Environmental Resource Management, Environmental Quality Division

Relevant Parks:

TIMU, FOCA, FOMA, CASA

Period of Record:

Variable, depending on topic

Description:

The Ambient Water Quality Section (AWQS) is the lead environmental agency collecting surface water quality data in Duval County. As such AWQS closely coordinates all of its monitoring activities with other agencies working in the area. All of the data collected by AWQS are regularly provided to state, regional and local agencies charged with permitting activities that may impact surface water quality. This information is available to the public upon request. The AWQS is also the lead agency responding to citizen complaints or fish kills for surface waters of the state in Duval County.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://www.coj.net/Departments/Environmental+Resource+Management/Environmental+Quality/Water+Quality.htm>

Air Quality

Ozone Monitoring

PM₁₀ Monitoring (Particles less 10 microns)

Responsible Agency / Park:

South Carolina Department of Health & Environmental Control (SCDHEC) / CONG

[Others Unknown]

Relevant Parks:

Congaree NP and Fort Sumter NM have ozone monitors on-site, the rest of the Southeast Coast Network parks have one or more ozone monitors within 35 miles.

Period of Record:

CONG: 23 years of air quality data

FOSU:

[Unknown]

Description:

Chattahoochee River NRA, Congaree NP, Kennesaw Mountain NBP, and Ocmulgee NM are in areas that will likely be designated non-attainment under EPA's new human-health based 8-hour NAAQS.

Date Last Updated:

Unknown

Catalog Number:

More Information:

North Carolina Department of Environment and Natural Resources, Division of Air Quality

Air Quality
Emissions
Air Pollution

Responsible Agency / Park:

North Carolina Department of Environment and Natural Resources, Division of Air Quality

Relevant Parks:

CAHA, FORA, WRBR, CALO, MOCR

Period of Record:

Variable, depending on dataset

Description:

The Division of Air Quality (DAQ) is responsible for protecting and improving outdoor, or ambient, air quality in North Carolina. To carry out this mission, the DAQ has programs for monitoring air quality, permitting and inspecting air emissions sources, and

educating and informing the public about air quality issues. The DAQ, which is part of the N.C. Department of Environment and Natural Resources (DENR), also enforces state and federal air pollution regulations. The DAQ does not make these rules. In North Carolina, the General Assembly enacts state air pollution laws, and the Environmental Management Commission adopts most regulations dealing with air quality. In addition, the U.S. Environmental Protection Agency (EPA) has designated the DAQ as the lead agency for enforcing federal laws and regulations dealing with air pollution in North Carolina.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://daq.state.nc.us/monitor/data/>

Particulates Monitoring

PM₁₀ Monitoring (Particles less 10 microns)

Responsible Agency / Park:

[Unknown]

Relevant Parks:

FOSU – Monitoring station on site.
Other SECN parks – Station within 35 miles.

Period of Record:

[Unknown]

Description:

Small or “fine” particles in the air, typically those less than 2.5 micrometers in diameter, PM_{2.5}, are a leading cause of human respiratory illness. Particles are present everywhere, but high concentrations and/or specific types have been found to present a serious danger to human health. Fine particles in the air are the main contributor to human-caused visibility impairment. The particles not only decrease the distance one can see; they also reduce the colors and clarity of scenic vistas. Moisture in the air enhances the impact, so areas in the Eastern U.S., with higher relative humidity, have worse visibility than areas in the arid West (see attached Air Inventory map). In 1997, EPA finalized new stricter, human-health based, National Ambient Air Quality Standards (NAAQS) for particulate matter. Original NAAQS for particulate matter were for those

particles 10 microns or less (PM10). The new national standards now regulate PM2.5.

Date Last Updated:

Unknown

Catalog Number:

More Information:

Georgia Air Pollution Monitoring

Ambient Monitoring Program

Responsible Agency / Park:

Georgia Department of Natural Resources,
Environmental Protection Division, Air Protection
Branch

Relevant Parks:

CHAT, KEMO, OCMU, FOPU, FOFR, CUIS

Period of Record:

Ongoing since at least 1998

Description:

The Ambient Monitoring Program (AMP) measures levels of air pollutants throughout Georgia. The data are used to determine compliance with air standards established for five compounds and to evaluate the need for any special controls for various other pollutants. Pollutants monitored are ozone (O3), sulfur dioxide (SO2), carbon monoxide, (CO), nitrogen dioxide (NO2), and particulate matter (PM10 and PM2.5). Further, all these data are used to calculate the Air Quality Index (AQI) - a simple measure of a region's air quality.

Date Last Updated:

Daily monitoring

Catalog Number:

More Information:

<http://www.air.dnr.state.ga.us/amp/index.html>

Air Quality, Particulates, and Ozone Monitoring

Air Quality

Particulates

Ozone

Greenhouse Gases

Responsible Agency / Park:

National Oceanic and Atmospheric Administration
(NOAA) Air Quality

Relevant Parks:

All SECN Parks

Period of Record:

Ongoing; date of initiation unknown

Description:

NOAA has numerous air quality monitoring links for various large-scale air quality parameters including ozone forecasts, wildfire smoke forecasts, aerosols, greenhouse gases, halocarbons, and atmospheric trace species. Also on the site is a source/receptor concentration matrix, which computes the transport and dispersion from all pollutant sources to compute the contribution of each source to a specific receptor (sampling location).

Date Last Updated:

June 10th, 2004

Catalog Number:

More Information:

<http://www.noaa.gov/airquality.html>

Georgia Air Quality

Air Quality

Ozone

Emissions

Responsible Agency / Park:

Georgia DNR, Environmental Protection Division

Relevant Parks:

CHAT, KEMO, OCMU, FOPU, FOFR, CUIS

Period of Record:

Ongoing

Description:

Georgia DNR, Environmental Protection Division has links to several air quality programs and data for the state of Georgia. The following programs can be found on the website:

Georgia's Clean Air Force: In Georgia, mobile sources, like cars and light trucks, are one of the top contributors to our ozone problem. Metro Atlanta's emission testing program is the result of the Federal Clean Air Act, which was enacted by the U.S. Congress and supported by the Georgia General Assembly. The goal of the program is simple: identify the vehicles that are the heavy polluters, and have them fixed.

Clean Air Campaign: The Clean Air Campaign is a not-for-profit organization that works to reduce traffic congestion and improve air quality through a variety of voluntary programs and services, including free employer assistance, public information and children's education. Formed in 1996 by government, business, civic, health, environmental and educational organizations, The Clean Air Campaign serves as a clearinghouse for a multitude of organizations that have programs in place to address traffic congestion and air pollution.

Georgia and Atlanta Air Quality Data: The Ambient Monitoring Program measures levels of air pollutants throughout the State. The data are used to determine compliance with air standards established for five compounds and to evaluate the need for any special controls for various other pollutants. Recent measurements are available.

Greenhouse Gas Emissions Program and the Final Report on Georgia's Greenhouse Gas Emissions Inventory: The Air Protection Branch completed a project to inventory the 1990 and 1996 greenhouse gas emissions to determine the total quantity and sources of greenhouse gas emissions. These sources include: fossil and biomass fuels, industrial emissions, landfills, forest management and land use changes, natural gas and oil systems, coal mining, domestic livestock, manure management, and fertilizer use. [Revised Jan 1999]

Date Last Updated:
June 14th, 2004

Catalog Number:

More Information:
<http://www.dnr.state.ga.us/dnr/environ/>

South Carolina Air Quality

Ozone
Emissions
Air Quality
Dispersion modeling

Responsible Agency / Park:
South Carolina Department of Health and Environmental Control / Bureau of Air Quality

Relevant Parks:
CONG, FOSU, CHPI

Period of Record:
Ongoing

Description:
This agency website provides links to and information about a variety of South Carolina air quality monitoring programs. Ozone forecasts, air quality data and dispersion modeling, and South Carolina emissions inventory data are available here, as well as various other types of information, such as educational programs, public notices, publications, and technical management documents.

Date Last Updated:
July 23rd, 2004

Catalog Number:
More Information:
<http://www.scdhec.net/baq/>

Air Quality Photopoint Monitoring - FOPU

Air Quality
Viewshed

Responsible Agency / Park:
National Park Service - FOPU

Relevant Parks:
FOPU

Period of Record:
Ongoing

Description:
FOPU takes photographs at seven photopoint locations, twice per year, to capture changes in air quality conditions, over time.

Date Last Updated:
Unknown

Catalog Number:

More Information:
Duval County, Environmental Resource Management, Environmental Quality Division
Air Quality
Emissions Monitoring

Responsible Agency / Park:
Duval County, FL - Duval County, Environmental Resource Management, Environmental Quality Division

Relevant Parks:
TIMU, FOCA, FOMA, CASA

Period of Record:

Variable, depending on topic

Description:

Concentrations of carbon monoxide, sulfur dioxide, nitrogen dioxide, ozone, lead and particulate matter in the outdoor atmosphere are measured and recorded in accordance with Federal and State regulations.

Data are available to the citizens of Jacksonville and to consultants for use in air pollution dispersion modeling.

The amount of each pollutant emitted by various air pollution sources in Duval County is maintained by the AQB. Most of this data is compiled from Annual Operating Reports which major industrial sources are required to submit to AQB annually. Other inventory data from small and mobile air pollution sources is compiled collectively. This data is available for use by the general public, news media and industrial sources.

AQB compiles air toxic emissions information from facilities in Duval County and can assess relative risk at surrounding locations. Toxic Release Inventory (TRI) data is available to the public, private industry and the media. Also, ambient concentrations of air toxics are measured for 38 pollutants at two stationary air toxics monitoring sites and by using a mobile air toxics monitoring laboratory at various locations within the county. Summaries of air toxics monitoring data for the stationary sites and the mobile laboratory are available for review.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://www.coj.net/Departments/Environmental+Resource+Management/Environmental+Quality/Air+Quality.htm>

Climate & Weather

The Drought Monitor

Soil Moisture
Streamflow
Drought Conditions

Responsible Agency / Park:

A partnership between US Department of Agriculture, National Oceanic and Atmospheric Administration, National Weather Service, and University of Nebraska – Lincoln.

Relevant Parks:

All SECN parks

Period of Record:

1999 – present (ongoing)

Description:

Tracking drought blends science and art. No single definition of drought works for all circumstances, so people rely on drought indices to detect and measure droughts. But no single index works under all circumstances, either. That's why we need the Drought Monitor, a synthesis of multiple indices, outlooks and news accounts that represents a consensus of federal and academic scientists. The product will be refined over time as we find ways to make it better reflect the needs of decision-makers and others who use the information. Products include national maps indicating: current drought conditions, historic drought conditions, drought forecasts, streamflow forecasts, soil moisture forecasts, and seasonal drought outlook.

Date Last Updated:

July 29, 2004

Catalog Number:**More Information:**

<http://drought.unl.edu/dm/monitor.html>

NOAA - Large-Scale Climate Monitoring

Temperature
Precipitation

Responsible Agency / Park:

National Oceanic and Atmospheric Administration (NOAA) Climate Data Center

Relevant Parks:

All SECN Parks

Period of Record:

Ongoing

Description:

NOAA's Climate Data Center provides information on national scale archived and current weather and climate data.

Date Last Updated:

Variable depending on the data set.

Catalog Number:**More Information:**

<http://www.noaa.gov/climate.html>

<http://www.ncdc.noaa.gov/oa/climate/uscrn/>

NOAA – US Climate Reference Network

Air Temperature
Precipitation
Solar Radiation
Wind Speed
Surface Temperatures
Relative Humidity

Responsible Agency / Park:

National Oceanic and Atmospheric Administration (NOAA)

Relevant Parks:

CUIS will have a station

Period of Record:**Description:**

The U.S. Climate Reference Network (USCRN) is a network of climate stations now being developed as part of a National Oceanic and Atmospheric Administration (NOAA) initiative. Its primary goal is to provide future long-term homogeneous observations of temperature and precipitation that can be coupled to long-term historical observations for the detection and attribution of present and future climate change. Data from the USCRN will be used in operational climate monitoring activities and for placing current climate anomalies into an historical perspective. The USCRN will also provide the United States with a reference network that meets the requirements of the Global Climate Observing System (GCOS). If fully implemented, the network will consist of about 110 stations nationwide. Implementation of the USCRN is contingent on the availability of funding.

Date Last Updated:

Variable depending on the data set.

Catalog Number:**More Information:**

<http://www.ncdc.noaa.gov/oa/climate/uscrn/>

Regional Drought Watch

Drought Conditions

Soil Moisture

Precipitation

Responsible Agency / Park:

National Oceanic and Atmospheric Administration (NOAA) Climate Data Center - U.S. Regional Drought Watch

Relevant Parks:

All SECN Parks

Period of Record:

Ongoing

Description:

NOAA's U.S. Regional Drought Watch has information on precipitation and drought summaries for regional and state areas. Links to the Climate Prediction Center's weekly soil moisture and weekly drought monitoring are provided on the website.

Date Last Updated:

May 2004

Catalog Number:**More Information:**

<http://www.ncdc.noaa.gov/oa/climate/research/2004/may/drought-regional-overview.html>

National Weather Service

National Weather Monitoring

Responsible Agency / Park:

National Oceanic and Atmospheric Administration (NOAA)

Relevant Parks:

All SECN Parks

Period of Record:

Ongoing

Description:

The National Weather Service is the primary source of weather data, forecasts and warnings for the United States. Television weathercasters and private meteorology companies prepare their forecasts using this information. The NWS is the sole United States official voice for issuing warnings during life-

threatening weather situations. Past weather information is also available.

Date Last Updated:

Data are collected in real-time and updated on the operational server throughout the day.

Catalog Number:**More Information:**

<http://www.noaa.gov/wx.html>

National Atmospheric Deposition Program

Precipitation Monitoring

Acid Rain

Responsible Agency / Park:

U.S. Geological Survey (USGS)

Relevant Parks:

All SECN Parks

Period of Record:

1978- Present (ongoing)

Description:

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) is a nationwide network of precipitation monitoring sites. The network is a cooperative effort between many different groups, including the State Agricultural Experiment Stations, U.S. Geological Survey, U.S. Department of Agriculture, and numerous other governmental and private entities. The NADP/NTN has grown from 22 stations at the end of 1978 (the first year), to more than 200 sites spanning the continental United States, Alaska, and Puerto Rico, and the Virgin Islands. The purpose of the network is to collect data on the chemistry of precipitation for monitoring of geographical and temporal long-term trends. The precipitation at each station is collected weekly according to strict clean-handling procedures. It is then sent to the Central Analytical Laboratory where it is analyzed for hydrogen (acidity as pH), sulfate, nitrate, ammonium, chloride, and base cations (such as calcium, magnesium, potassium and sodium).

NADP data products include:

- Weekly and daily precipitation chemistry data
- Monthly, seasonal, and annual precipitation-weighted mean concentrations
- Annual and seasonal wet deposition totals

- Mercury deposition data
- Daily precipitation totals
- Color isopleth maps of precipitation concentrations and wet deposition
- Site photos, maps, and information
- Quality Assurance data and information

Date Last Updated:

Unknown; There is a five to six month lag time between data collection and data posting on the website.

Catalog Number:

More Information:

<http://bqs.usgs.gov/acidrain/>

Ecological Systems and Processes

NatureServe – Ecological Systems of the United States

Ecological Classification Systems

Responsible Agency / Park:

NatureServe

Relevant Parks:

All SECN parks

Period of Record:

Description:

Conservationists and land managers seeking to take a multi-faceted approach to ecosystem management benefit from consistent ways to characterize the landscape. These data represent the first version of a new mid-scale ecological classification developed by NatureServe for use in conservation and environmental planning. Ecological Systems represent recurring groups of biological communities that are found in similar physical environments and are influenced by similar dynamic ecological processes, such as fire or flooding. These data sets describe nearly 600 upland and wetland ecological system types found in the lower 48 United States, southern Alaska, and adjacent portions of Mexico and Canada.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://www.natureserve.org/getData/ecologyData.jsp#US>

USDA Forest Service Center for Forested Wetlands Research

Forested Wetlands

Forest Management

Riparian Zones

Soil Science

Responsible Agency / Park

Forest Service

Relevant Parks:

CHAT, CONG, HOBE

Period of Record:

Ongoing

Description:

The Center for Forested Wetlands Research is an interdisciplinary unit whose program is designed to:

"To develop, quantify, and synthesize ecological information needed to sustainably manage and restore the structure, function, and productivity of wetland-dominated forested landscapes."

The Center's mission is conducted under the basic tenets of forest sustainability, and is intended to provide the data and tools necessary for managing forested wetland landscapes to sustain ecosystem functions, goods, and services for future generations. The relevance of the research is regional, national, and international, although it is derived primarily from work in the Atlantic Coastal Plain of the southeastern United States

Date Last Updated:

2004

Catalog Number:

More Information:

No data are available, but website has links to various publications.

<http://www.srs.fs.usda.gov/charleston/>

Fire Effects Monitoring

Responsible Agency / Park:

Relevant Parks:

Period of Record:

Description:

Date Last Updated:

Catalog Number:

More Information:

Fire Effects Information System

Fire Effects on Species Data

Responsible Agency / Park:

USDA, Forest Service

Relevant Parks:

All SECN Parks

Period of Record:

Ongoing

Description:

FEIS provides up-to-date information about fire effects on plants and animals. It was developed at the United States Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory in Missoula, Montana.

The FEIS database contains literature reviews, taken from current English-language literature of almost 900 plant species, about 100 animal species, and 16 Kuchler plant communities found on the North American continent. The emphasis of each review is fire and how it affects each species. Background information on taxonomy, distribution, basic biology, and ecology of each species is also included. Reviews are thoroughly documented, and each contains a complete bibliography. Managers from several land management agencies (United States Department of Agriculture, Forest Service and United States Department of Interior, Bureau of Indian Affairs, Bureau of Land Management, Fish and Wildlife Service, and National Park Service) identified the species to be included in the database. Those agencies funded the original work and continue to support maintenance and updating of the database.

Date Last Updated:**Catalog Number:****More Information:**

<http://www.fs.fed.us/database/feis/index.html>

Land Use and Landcover Change - CONG

Land Use

Landcover

Responsible Agency / Park:

University of South Carolina

Relevant Parks:

CONG

Period of Record:**Description:**

To examine changes in land use through existing imagery and GIS products and provide a historical progression of landscape change over time.

Date Last Updated:**Catalog Number:****More Information:**

Dr. William Graf: grafw@gwm.sc.edu

Pest Species

Bibb County Mosquito Control:

Mosquito Trapping
Mosquito Spraying

Responsible Agency / Park:

Bibb County, GA

Relevant Parks:

OCMU

Period of Record:

Not Listed

Description:**Date Last Updated:**

Unknown

Catalog Number:**More Information:**

<http://www.co.bibb.ga.us/>

Brevard County Mosquito Control:

Mosquito Trapping
Mosquito Spraying

Environmental Monitoring

Responsible Agency / Park:

Brevard County, FL

Relevant Parks:

CANA

Period of Record:

Not Listed

Description:

Brevard County provides an integrated mosquito control program that provides: adulticiding, larviciding, source reduction, disease monitoring, environmental monitoring, and biological control of mosquitoes.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://www.brevardcounty.us/mosquito/index.cfm>

Camden County Mosquito Control:

Mosquito Trapping
Mosquito Spraying

Responsible Agency / Park:

Camden County, GA

Relevant Parks:

CUIS, FOFR

Period of Record:

Not Listed

Description:**Date Last Updated:**

Unknown

Catalog Number:**More Information:**

Carteret County Animal and Mosquito Control:

Mosquito Trapping
Mosquito Spraying

Responsible Agency / Park:

Carteret County, NC – Carteret County Animal and Mosquito Control

Relevant Parks:

CALO

Period of Record:

Not Listed

Description:

Mosquito control activities include surveillance, application of larvacide in known breeding grounds, and regularly scheduled spraying targeted at adult mosquitoes.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://www.co.carteret.nc.us/departments/animal.htm>

Charleston County Public Works:

Mosquito Trapping
Mosquito Spraying

Responsible Agency / Park:

Charleston County, SC

Relevant Parks:

FOSU, FOMO, CHPI

Period of Record:

Not Listed

Description:

Charleston County manages the mosquito population through inspection, treatment, site cleanup and public awareness

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://www.charlestoncounty.org/index2.asp?p=/departments/PublicWorks/D-PublicWorks.htm#This%20Department%20Does>

Chatham County Mosquito Control:

Mosquito Trapping
West Nile Virus
Eastern Equine Encephalitis

Responsible Agency / Park:

Chatham County, GA – Chatham County Mosquito Control

Relevant Parks:

FOPU

Period of Record:

Post 1957

Description:

The Chatham County Mosquito Control staff locates and monitors mosquito-breeding sites for immature mosquitoes. Light traps, reports from residents, and human landing rates are used to monitor adult mosquito populations. A sentinel chicken flock is used to detect the presence of the mosquito-borne diseases, Eastern Equine Encephalitis and West Nile Fever. This agency is also responsible for mosquito control in the form of physical, biological, and chemical control.

Species lists and light trap data are available.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

http://www.chathamcounty.org/departments/about_us/T8_R19.html

Dr. Henry B. Lewandowski, Director
65 Short Street Savannah, GA 31408
Phone: (912) 790-2540

Fax: (912) 790-2550

hblewand@chathamcounty.org

Cobb County Mosquito Control:

Mosquito Trapping
Mosquito Spraying

Responsible Agency / Park:

Cobb County, GA

Relevant Parks:

KEMO

Period of Record:

Not Listed

Description:**Date Last Updated:**

Unknown

Catalog Number:**More Information:****Dare County Public Works, Mosquito Control:**

Mosquito Trapping
Mosquito Spraying

Responsible Agency / Park:

Dare County, NC – Dare County Public Works, Mosquito Control

Relevant Parks:

CAHA, FORA, WRBR

Period of Record:

Not Listed

Description:

Dare County Public Works operates a mosquito control program aimed at identifying breeding areas; monitoring mosquito population and conducting larvaciding and adulticiding by the application of low volume concentrate insecticides. The insecticides are generally administered by the use of ULV Machines, or commonly known as mosquito sprayers, through safe and proven methods.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

http://www.co.dare.nc.us/Public_Works/index.htm#Mosquito

Duval County Mosquito Control:

Mosquito Trapping
West Nile Virus
Eastern Equine Encephalitis

Responsible Agency / Park:

Duval County, FL – Duval County Mosquito Control

Relevant Parks:

TIMU, FOCA, FOMA, CASA

Period of Record:

Post 1957

Description:

The Mosquito Control Division is part of the Environmental Resource Management Department of the City of Jacksonville. The Division provides county-wide mosquito surveillance and control.

Duval County has a modern mosquito control program that has been active since 1957, the Jacksonville Mosquito Control Division. Today, this unit joins with over 50 other mosquito control districts in Florida to lead the nation in community based mosquito control.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://www.coj.net/Departments/Environmental+Resource+Management/Mosquito+Control/default.htm>

Forsyth County Mosquito Control:

Mosquito Trapping
Mosquito Spraying

Responsible Agency / Park:

Forsyth County, GA

Relevant Parks:

CHAT

Period of Record:

Not Listed

Description:**Date Last Updated:**

Unknown

Catalog Number:**More Information:****Fulton County Mosquito Control:**

Mosquito Trapping
Mosquito Spraying

Responsible Agency / Park:

Fulton County, GA

Relevant Parks:

CHAT

Period of Record:

Not Listed

Description:**Date Last Updated:**

Unknown

Catalog Number:**More Information:****Gwinnett County Mosquito Control:**

Mosquito Trapping
Mosquito Spraying

Responsible Agency / Park:

Gwinnett County, GA

Relevant Parks:

CHAT

Period of Record:

Not Listed

Description:**Date Last Updated:**

Unknown

Catalog Number:**More Information:****Pender County Mosquito Control:**

Mosquito Trapping
Mosquito Spraying

Responsible Agency / Park:

Pender County, NC

Relevant Parks:

MOCR

Period of Record:

Not Listed

Description:

Pender County attempts to reduce adult mosquito population through preventative larvicide's application and nightly spraying in season.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://www.pender-county.com/mosquitocntrl.html>

Richland County Health Department, Mosquito Control:

Mosquito Trapping
Mosquito Spraying

Responsible Agency / Park:

Richland County, SC

Relevant Parks:

CONG

Period of Record:

Not Listed

Description:

The Richland County Health Department has begun its seasonal mosquito control program. The program conducts surveillance on mosquito populations, treats larval breeding sites and sprays for adult mosquitoes in densely populated areas of the county.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://www.richlandonline.com/news/2002n/pr040502.htm>

Tallapoosa County Mosquito Control:

Mosquito Trapping
Mosquito Spraying

Responsible Agency / Park:

Tallapoosa County, AL

Relevant Parks:

HOBE

Period of Record:

Not Listed

Description:**Date Last Updated:**

Unknown

Catalog Number:**More Information:****Mosquito Monitoring – CONG**

Bird-associated virus diversity

Responsible Agency / Park:

CONG

University of South Carolina (Dr. Ivo Foppa)

Relevant Parks:

CONG

Period of Record:

2002-2003

Description:

Focus of the project is to contribute to the understanding of the ecology and epidemiology of mosquito-transmitted bird-associated viruses by surveying mosquitoes and wild birds for evidence of previous or current infection with agents maintained in a bird-mosquito-bird cycle at the park. Preliminary results documented no viruses, including West Nile Virus, Eastern Equine encephalitis, and Saint Louis encephalitis.

Date Last Updated:

May 2003

Catalog Number:**More Information:****Georgia Agricultural Pest Survey**

Agricultural Crop Pests
Biological Control Agents

Responsible Agency / Park:

Cooperative effort among the following State and Federal agencies: USDA APHIS PPQ, Georgia Department of Agriculture, The University of Georgia, USDA Forest Service, Georgia Forestry Commission

Relevant Parks:

CHAT, KEMO, OCMU, FOPU, FOFR, CUIS

Period of Record:

Ongoing; date of initiation unknown

Description:

The Cooperative Agricultural Pest Survey (CAPS) is a combined effort by Federal and State agricultural organizations to conduct surveillance, detection, and monitoring of agricultural crop pests and biological control agents. Survey targets include weeds, plant diseases, insects, nematodes, and other invertebrate organisms.

Date Last Updated:

June 1st, 2003

Catalog Number:**More Information:**

<http://www.gacaps.org/>

Pesticide Use Log – National Park Service**Responsible Agency / Park:**

National Park Service

Relevant Parks:

All SECN Parks

Period of Record:

Variable by Park

Description:

In 1980 the National Park Service, one of the first agencies to examine and implement an improved IPM control and education program, designated IPM Coordinators in the Washington Office and at each of the Regional Offices. All Coordinators are trained certified pesticide applicators whose basic duties changed dramatically since 1980.

IPM Coordinators:

- Provide technical advice and support such as pest identification, location of information on a pest, treatment options, and on-site assistance to resolve a pest problem.
- Provide new information to park units on pertinent pest issues, new management policies, and new developments in pest management.
- Review and approve proposed pest management actions, including the use of cultural, biological, physical, and chemical control methods.
- Maintain the Pesticide Use Log which tracks the annual use of all pesticides in NPS units.
- Assist park units with meeting the requirements of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and state laws. FIFRA

regulates the labeling, sale and distribution, storage, transportation, use and application, and the disposal of pesticides.

Date Last Updated:**Catalog Number:****More Information:**

<http://www.sero.nps.gov/natural/epmt.htm>

Exotics – Invertebrate

Florida Department of Agricultural and Consumer Services

Exotic Invertebrates (Pest-Alert)

Responsible Agency / Park
FDACS

Relevant Parks:
TIMU, FOCA, CASA, CANA

Period of Record:
Ongoing

Description:
The mission of the Department of Agriculture and Consumer Services (FDACS) is to safeguard the public and support Florida's agricultural economy by: (1) Ensuring the safety and wholesomeness of food and other consumer products through inspection and testing programs; (2) Protecting consumers from unfair and deceptive business practices and providing consumer information; (3) Assisting Florida's farmers and agricultural industries with the production and promotion of agricultural products; and (4) Conserving and protecting the state's agricultural and natural resources by reducing wildfires, promoting environmentally safe agricultural practices, and managing public lands.

Date Last Updated:

Catalog Number:

More Information:
<http://www.doacs.state.fl.us/pi/enpp/pi-pest-alert.html>

FWC Fish and Wildlife Research Institute

Invasive-Aquatic Invertebrate Species

Responsible Agency / Park
FWC

Relevant Parks:
TIMU, FOCA, CASA, CANA

Period of Record:
Ongoing

Description:
The Fish and Wildlife Institute (FWRI) was created in July 2004 as an integration of the biological research and support staff of the FWC Division of Wildlife, Division of Freshwater Fisheries, and Florida Marine Research Institute. The FWRI focuses on spatial analyses, biostatistics and modeling, wildlife forensics, and socioeconomic work relative

to Florida's natural resources. More specifically, the FWRI is charged with: (1) Monitoring marine and freshwater resources, wildlife, and habitats, (2) Developing and implementing techniques for restoring plant and animal species and their habitat, (3) Providing technical support when oil spills and human-related or natural disasters occur, (4) Monitoring red tides and providing technical support for state and local government public health concerns, and (5) Providing fish and wildlife research technical results to state and local governments. The FWRI is divided into five interrelated science sections: (1) Marine Fisheries Research, (2) Freshwater Fisheries Research, (3) Ecosystem Assessment and Restoration, (4) Wildlife Research, and (5) Information Science and Management.

Date Last Updated:
Ongoing

Catalog Number:

More Information:
http://www.floridamarine.org/features/category_main.asp?id=1952

Florida Department of Forestry (FDOF)

Southern Pine Beetle

Responsible Agency / Park
FDOF

Relevant Parks:
TIMU, FOCA, CASA, CANA

Period of Record:
1995-2004

Description:
Since 1995, the FDOF has participated in an annual southwide Southern Pine Beetle (SPB) spring trapping survey. The objective of the survey is to monitor numbers of adult SPBs and their clerid predators (*Thanasimus dubius*) captured in pheromone-baited flight traps during the SPB's primary spring dispersal phase. The results are then used as an early-season prediction of SPB population trends and activity levels, allowing forest managers to identify areas of potential SPB activity in advance of aerial detection flights. The survey also provides data for monitoring SPB population levels from year to year. The survey technique and accompanying prediction model were developed by Dr. Ron Billings at the Texas Forest Service, have been employed throughout the Southeast since 1986, and have

proven to be 75-85% accurate in predicting SPB activity for a given year. Recently, the Florida survey successfully predicted outbreak levels for several counties in 2001 as well as statewide low levels of activity in 2003.

As in previous years, the 2004 Florida survey was conducted using three pheromone traps in each of 27 counties, with each trap located in a different area of susceptible forest type. Traps were deployed and checked weekly through the month of March. The 27 counties surveyed included those that are most likely to experience SPB problems based on historical outbreaks and/or their relative abundance of loblolly pines.

Date Last Updated:
2004

Catalog Number:

More Information:

http://www.fl-dof.com/Conservation/forest_health/SPBindex.html

Gypsy Moth Monitoring – USDA, Forest Service
Gypsy Moth Trapping

Responsible Agency / Park:

US Department of Agriculture, Forest Service, Forest Health Protection

Relevant Parks:

All SECN Parks except CHAT, CAHA, CALO, and CANA

Period of Record:

Variable by park

CONG: 1983-1984; 1987-1995; 1997-1999; 2002-2004

Description:

USDA, Forest Service monitors the spread of gypsy moths throughout the United States. Each year, summary reports are distributed to each unit participating in the gypsy moth monitoring program – including where positive identifications were made. Parks participate in this program by deploying pheromone traps throughout park property.

Date Last Updated:

Catalog Number:

More Information:

http://na.fs.fed.us/wv/gmdigest/online_info/index.html

Exotics – Vertebrate

FWC Fish and Wildlife Research Institute

Invasive-Aquatic Vertebrate Species

Responsible Agency / Park

FWC

Relevant Parks:

TIMU, FOCA, CASA, CANA

Period of Record:

Ongoing

Description:

The Fish and Wildlife Institute (FWRI) was created in July 2004 as an integration of the biological research and support staff of the FWC Division of Wildlife, Division of Freshwater Fisheries, and Florida Marine Research Institute. The FWRI focuses on spatial analyses, biostatistics and modeling, wildlife forensics, and socioeconomic work relative to Florida's natural resources. More specifically, the FWRI is charged with: (1) Monitoring marine and freshwater resources, wildlife, and habitats, (2) Developing and implementing techniques for restoring plant and animal species and their habitat, (3) Providing technical support when oil spills and human-related or natural disasters occur, (4) Monitoring red tides and providing technical support for state and local government public health concerns, and (5) Providing fish and wildlife research technical results to state and local governments. The FWRI is divided into five interrelated science sections: (1) Marine Fisheries Research, (2) Freshwater Fisheries Research, (3) Ecosystem Assessment and Restoration, (4) Wildlife Research, and (5) Information Science and Management.

The FWRI maintains information on exotic fish occurrences, abundance estimates, and observed location.

Date Last Updated:

Unknown

Catalog Number:

More Information:

http://www.floridamarine.org/features/category_main.asp?id=1952

Exotics/Invasives – Plants

Exotic Pest Plant Council (EPPC)

Exotic/Invasive Plant Species

Responsible Agency / Park
EPPC

Relevant Parks:
All SECN Parks

Period of Record:
1984-Present

Description:

The Exotic Pest Plant Council (EPPC) was founded for the purpose of focusing attention on: (1) The impacts exotic pest plants have on biodiversity, (2) The impact of exotic pest plants on the integrity of native plant community composition and function, (3) Habitat loss due to exotic plant infestations, (4) The impacts of exotic pest plants on endangered species primarily due to habitat loss and alteration, (5) The need to prevent habitat loss and alteration by comprehensive management for exotic pest plants, (6) The socioeconomic impacts of exotic pest plants (e.g. increased wildfire intensity and frequency in *Melaleuca quinquenervia*), (7) Changes in the seriousness of exotic pest plants and to indicate which are the worst problems, and (8) Informing and educating resource managers about which species deserve to be monitored, and to help managers set priorities for management.

Date Last Updated:
2004

Catalog Number:

More Information:

Florida:

<http://www.fleppc.org/>

Georgia:

<http://www.gaepc.org/>

<http://www.exoticpestplantcouncil.org/>

Florida Department of Environmental Protection

Exotic/Invasive Plant Species

Responsible Agency / Park
FDEP

Relevant Parks:
TIMU, FOCA, CASA, CANA, CUIS, FOFR, FOPU

Period of Record:
Ongoing

Description:

The FDEP is the lead agency in Florida responsible for coordinating and funding two statewide programs controlling invasive aquatic and upland plants on public conservation lands and waterways throughout the state. Florida's aquatic plant management program is one of the oldest invasive-species removal programs, dating back to the late 1800s. With the addition of the upland program, the FDEP oversees the largest invasive plant management program of its kind in the United States. The FDEP also insures that beneficial native aquatic plants are protected through its permitting programs.

The FDEP maintains information regarding exotic/invasive species, effective treatments, and management recommendations.

Date Last Updated:

Catalog Number:

More Information:

<http://www.dep.state.fl.us/lands/invaspec/index.htm>

NatureServe – Invasive Species, Impact Assessments

Invasive/Exotic Species
Biodiversity

Responsible Agency / Park:
NatureServe

Relevant Parks:
All SECN parks

Period of Record:

Description:

Which non-native species pose the most serious threats to native species and ecosystems? To answer this question, NatureServe, in collaboration with The Nature Conservancy, has developed a protocol for assessing, categorizing, and listing non-native plants according to their impacts on native biodiversity. The protocol is designed to focus specifically on the effects non-native species have on native plants, animals, and natural communities and to make the process of assessing non-native species objective, transparent, and systematic. The protocol is intended to be applied to species as they occur over large areas, such as nations, ecoregions, provinces, or states.

NatureServe has recently begun to use the protocol to assess the approximately 3,500 non-native vascular plants recorded as occurring outside of cultivation in the United States. The downloadable dataset provides the results of using the Invasive Species Protocol Assessment to evaluate non-native plants for their impact on biodiversity in the U.S. This dataset will be periodically updated as additional non-native species are assessed.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://www.natureserve.org/getData/plantData.jsp>

USDA Invasivespecies.gov

Exotic/Invasive Plant Species

Responsible Agency / Park

USDA

Relevant Parks:

All SECN Parks

Period of Record:

Ongoing

Description:

Invasivespecies.gov is the gateway to Federal efforts concerning invasive species. On this site you can learn about the impacts of invasive species and the Federal government's response, as well as read select species profiles and find links to agencies and organizations dealing with invasive species issues. Invasivespecies.gov is also the Web site for the National Invasive Species Council, which coordinates Federal responses to the problem.

Date Last Updated:

Ongoing

Catalog Number:

More Information:

<http://www.invasivespecies.gov/>

<http://www.invasivespecies.gov/council/main.shtml>

Exotic Invasive Vegetation Monitoring

Exotic/Invasive Plant Species

Responsible Agency / Park:

National Park Service

Relevant Parks:

FOPU, HOBE, CANA, CASA FOMA, CUIS

Period of Record:

Description:

Date Last Updated:

Catalog Number:

More Information:

US Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine

Exotic/Invasive Plant Species

Responsible Agency / Park:

USDA, APHIS, PPQ

Relevant Parks:

All SECN Parks

Period of Record:

Variable

Description:

Over the past 200 years, several thousand foreign plant and animal species have become established in the United States. About one in seven has become invasive, leading to problems that, according to figures provided by Cornell University, cost the United States more than \$138 billion each year. An invasive species is an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health. Invasive plants, animals, and aquatic organisms often reduce the economic productivity and ecological integrity of U.S. agriculture and natural resources. In protecting the United States from harmful invasive species, APHIS is responsible for excluding and managing invasive species that can potentially affect plant and animal health, either directly or indirectly. Through its activities, APHIS protects not only agriculture but also forest, rangeland, and wetland ecosystems. APHIS works closely with USDA's Forest Service and the U.S. Department of the Interior's Bureau of Land Management, National Park Service, and Fish and Wildlife Service. APHIS controls certain types of invasive species and

vertebrate pests that affect native ecosystems, rather than agricultural resources. Certain specific activities focus on protecting and managing endangered species as well as migratory bird populations.

Date Last Updated:

Catalog Number:

More Information:

<http://www.aphis.usda.gov/oa/invasive/invasive.html>

Forestry

Florida Department of Forestry (FDOF)

Fuel-moisture Monitoring Program
Fire Weather

Responsible Agency / Park:
FDOF

Relevant Parks:
TIMU, FOCA, CASA, CANA

Period of Record:
Ongoing

Description:
The FDOF, in cooperation with the Nature Conservancy and the National Park Service, Everglades, is collecting Live Fuel Moisture data at eight locations statewide. Fuel moisture is determined from common fuels at each site, totaling 26 species statewide. Photopoint monitoring is also conducted at collection sites to provide a record of visual changes in sampling site over time.

The FDOF also monitors fire weather and provides fire weather forecasts.

Date Last Updated:
2004

Catalog Number:

More Information:
<http://flame.fl-dof.com/Env/lfm/>
http://flame.fl-dof.com/fire_weather/

Georgia Forestry Commission
Fire Weather

Responsible Agency / Park:
Georgia Forestry Commission

Relevant Parks:
CHAT, KEMO, OCMU, FOPU, FOFR, CUIS

Period of Record:
Ongoing; date of initiation unknown

Description:
This site provides extensive information about fire weather and prescribed burning. Links are available for obtaining burning permits in Georgia, and for 3-, 5-, and 7-day district weather forecasts, as well as 7-day National Fire Danger Ratings by GFC districts.

Date Last Updated:
Fire weather updated twice daily

Catalog Number:

More Information:
<http://www.gfc.state.ga.us/>

South Carolina Forest Management

Forest Management
Fire Weather
Southern Pine Beetle

Responsible Agency / Park:
South Carolina Forestry Commission

Relevant Parks:
CONG, FOSU, CHPI

Period of Record:
Ongoing

Description:
South Carolina Forestry Commission provides information about a variety of forestry related topics including Environmental Management (Best Management Practices) for conducting forest management activities and monitoring, reporting, and coordinating suppression of endemic pests affecting forest trees in South Carolina. The Insect and Disease section of this agency's website has information and surveys of the state's Southern Pine Beetle infested areas. Information on fire weather and other fire related information can be found here as well.

Date Last Updated:
Fire weather updated twice daily.

Catalog Number:

More Information:
<http://www.state.sc.us/forest/fmgt.htm>

Forest Inventory and Analysis

National Forest Inventory and Monitoring Databases

Responsible Agency / Park:
U.S. Forest Service

Relevant Parks:
All SECN Parks

Period of Record:
Ongoing; the program has been in operation since the 1930's.

Description:
Forest Inventory and Analysis (FIA) is the Nation's forest census. FIA reports on status and trends in

forest area and location; in the species, size, and health of trees; in total tree growth, mortality, and removals by harvest; in wood production and utilization rates by various products; and in forest land ownership. The enhanced FIA program will include information relating to tree crown condition, lichen community composition, soils, ozone indicator plants, complete vegetative diversity, and coarse woody debris. The program is managed by the Research and Development organization within the USDA Forest Service in cooperation with State and Private Forestry and National Forest Systems. FIA has been in operation under various names (Forest Survey, Forest Inventory and Analysis) for some 70 years. The program covers forests on all forest lands within the US. The program is implemented in cooperation with a variety of partners including State forestry agencies and private landowners who grant access to their lands for data collection purposes.

FIA Databases:

National FIA Database Retrieval System: This program produces tables and maps from the USDA Forest Service's Forest Inventory and Analysis Data Base (FIADB).

Phase 3 Forest Health Data Set Archive: This page includes links to archived data sets associated with the Phase 3 sample plots including attributes such as tree crown and damage data, lichen species diversity, ozone damage, and soil data. Prior to 2000, these attributes were collected as part of the Forest Health Monitoring program; since 2001, they have been collected as part of FIA. Data from both programs are available by year, and include metadata. Data are available in ZIPped archives, in both ASCII and SAS dataset formats.

Timber Output Product (TPO) Database Retrieval System: Developed in Support of the 1997 Resources Planning Act (RPA) Assessment, this system acts as an interface to a standard set of consistently coded TPO data for each State and county in the Country. This national set of TPO data consists of 11 data variables that describe for each county the roundwood products harvested, the logging residues left behind, the timber otherwise removed, and the wood and bark residues generated by its primary wood-using mills.

Date Last Updated:

Variable depending on the data set.

Catalog Number:

More Information:

<http://fia.fs.fed.us/>

Geologic Resources

Shoreline Erosion Monitoring – CUIS

Responsible Agency / Park:

Relevant Parks:
CUIS

Period of Record:

Description:

Date Last Updated:

Catalog Number:

More Information:

Shoreline Erosion Monitoring – FOPU

Shoreline Erosion

Responsible Agency / Park:
Skidaway Institute of Oceanography

Relevant Parks:
FOPU

Period of Record:
2004 – Present (ongoing)

Description:
This project is monitoring shoreline erosion of the north shore and Cockspur Lighthouse areas – looking at the effects of the Savannah River shipping channel traffic. This project will collect baseline information and develop a monitoring protocol for the park to continue monitoring after project completion.

Date Last Updated:

Catalog Number:

More Information:

North Carolina Coastal Monitoring

Shoreline Erosion
Storm Dynamics
Climate Change
Sea Level Rise
Beach Renourishment

Responsible Agency / Park:

A cooperative program between: East Carolina University Geology Department, North Carolina Geologic Survey, and US Geological Survey.

Relevant Parks:
CAHA, FOR A, WRBR, CALO

Period of Record:
Post-2001

Description:
North Carolina has experienced the economic devastation and human suffering resulting from six hurricanes and numerous tropical depressions since 1996. These storms have resulted in severe coastal and inland flooding, erosion of hundreds of miles of shoreline, and major damage and destruction of thousands of homes, businesses, and infrastructure systems. This emphatically underscores the great relevance to North Carolina that research scientists throughout the world are presenting compelling evidence that our global climate is warming, sea level is rising, and increased hurricane activity is predicted. Combined with the explosive development of our coastal zone, hundreds of thousands of people and billions of dollars of property continue to be at an ever-increasing risk in coastal North Carolina. It is imperative that we develop a better understanding of our coastal geology and associated resources, coastal storm dynamics, and high-risk coastal environments.

To respond to this critical issue, East Carolina University (ECU), the N.C. Geologic Survey (NCGS), and U.S. Geologic Survey (USGS) commenced in FY 2001 a cooperative geophysical and geological research program of the NC coastal region. These geologic investigations will develop a data base that is essential for resolving critical questions associated with utilizing and managing our extremely dynamic, but poorly understood coastal system and provide a sound scientific basis for policy and regulatory decisions. Among the issues being addressed are: shoreline erosion, storm dynamics and coastal system response, sand resources for beach renourishment, quality of crucial water resources, record of climate and sea level change, and habitat evolution within the barrier islands and estuaries.

Date Last Updated:

Catalog Number: More Information:
http://core.ecu.edu/geology/RIGGS/ECU_USGS/REVISED/PAGES/Home_Page1.html

Geologic Mapping of Congaree National Park

Geologic Map

Geomorphic Map

Responsible Agency / Park:

SC Department of Natural Resources – Geologic Survey

Relevant Parks:

CONG

Period of Record:

2002 – Present (and ongoing)

Description:

This project will create and update, digital geology map of 10 USGS quadrangles that encompass and surround Congaree National Park. In addition, a larger scale, detailed geomorphic map will be produced.

Date Last Updated:

Catalog Number:

More Information:

<http://www.dnr.state.sc.us/geology/geohome.htm>

Dr. C. Scott Howard: howard@dnr.state.sc.us

North Carolina Department of Environment and Natural Resources, Division of Coastal Management – Shoreline Erosion

Shoreline Erosion

Responsible Agency / Park:

North Carolina Department of Environment and Natural Resources, Division of Coastal Management

Relevant Parks:

CAHA, FORA, WRBR, CALO

Period of Record:

1992, updated 1998

Description:

The Division of Coastal Management works to protect, conserve and manage North Carolina's coastal resources through an integrated program of planning, permitting, education and research. DCM carries out the state's Coastal Area Management Act, the Dredge and Fill Law and the federal Coastal Zone Management Act of 1972 in the twenty coastal counties, using rules and policies of the N.C. Coastal Resources Commission, known as the CRC. Coastal Management is part of the Department of

Environment and Natural Resources, which is responsible for keeping the state's environment healthy. The division also receives oversight (and part of its funding) from the Office of Ocean and Coastal Resource Management, part of the National Oceanic and Atmospheric Administration.

Using current and historical aerial photography and sophisticated computer software, the Division of Coastal Management evaluates erosion rates about every five years. The small-scale maps below can provide information about oceanfront erosion rates for every section of the North Carolina coast, from the South Carolina border to the Virginia border. They are based on aerial photographs taken in 1992. Maps containing updated erosion rates based on 1998 aerial photography are also available.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://dcm2.enr.state.nc.us/Maps/erosion.htm>

Seismic Monitoring

Seismic Activity

Responsible Agency / Park:

Charleston Southern University
South Carolina Seismic Network

Relevant Parks:

FOSU, CHPI

Period of Record:

[Unknown]

Description:

Charleston, being the site of the largest earthquake on the eastern seaboard in modern times, is closely monitored and continues to be active. Data are recorded at the geology lab of Charleston Southern University. The Middleton Place/Summerville Seismic Zone is the most active area of tectonic seismicity in South Carolina. Annual totals average 12 to 15 events of magnitude 1.0M_L or greater with twice that number of quakes less than 1.0, many of which are too small to be located accurately. Research continues on the mechanisms at work in the Charleston area. One active fault has already been established along the Ashley River (Ashley River Fault) and recent work supports the concept of another fault running near parallel to the coastline

from SW of Charleston to the NE towards Lake Moultrie (Woodstock Fault).

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://scsn.seis.sc.edu/html/scsn.html>

National Oceanic and Atmospheric Administration

Land Use Change

Urbanization

Estuarine Systems

Responsible Agency / Park:

National Oceanic and Atmospheric Administration,
Center for Sponsored Coastal Ocean Research,
Coastal Ocean Program

Relevant Parks:

FOSU, CHPI, FOPU, FOFR, CUIS, TIMU, CASA,
FOMA, CANA

Period of Record:

Not Listed

Description:

The goal of the Coastal Ocean Program (COP) sponsored research in the Southern Atlantic Bight is to understand how changes in land-use and management patterns, population growth, habitat quality, and other environmental factors impact coastal ocean resources. These factors are being examined to quantify linkages and provide information to facilitate decision-making in order to minimize or avoid potential impacts to the resources and their habitats.

The primary objectives of the ongoing Urbanization and Southeastern Estuarine Systems (USES) study are: 1) to characterize and delineate the impact of multiple stresses resulting from urbanization on high-salinity estuaries; and 2) to develop models which will provide a scientifically valid basis for making land-use management decisions in the coastal zone. Emphasis has been placed on watershed dynamics, including an examination of land-use patterns and the impacts associated with watershed loading.

Date Last Updated:

Unknown

Catalog Number:

More Information:

Program Webpage:

http://www.cop.noaa.gov/Fact_Sheets/USES_LUCES.html

USES Project:

<http://www.urbanestuary.org/>

Land Use Project:

<http://www.lu-ces.org/>

Program Contact:

John Wickham

CSCOR/Coastal Ocean Program

phone: 301-713-3338

coastalocean@noaa.gov

NOAA National Ocean Service – National Geodetic Survey

Shoreline Monitoring

Geophysical Processes Monitoring

Responsible Agency / Park

NOAA, NOS, NGS

Relevant Parks:

All Coastal SECN Parks

Period of Record:

Variable

Description:

The National Geodetic Survey implements a coastal mapping program, which measures precise positions of the shoreline and other features needed for creating accurate nautical charts. It conducts aerial photography surveys near airports in the United States and its territories to locate obstructions and aids to air travel. NGS also develops industry specifications and standards for conducting geodetic surveys, coordinates the development and application of new surveying instrumentation and procedures, and assists state, county, and municipal agencies through a variety of cooperative programs and training workshops.

Date Last Updated:

Ongoing

Catalog Number:

More Information:

<http://www.nos.noaa.gov/programs/ngs/welcome.html>

USDA, Natural Resources Conservation Service:

Soil Mapping

Responsible Agency / Park:

USDA, Natural Resources Conservation Service

Relevant Parks:

All SECN parks

Period of Record:

Not Listed.

Description:

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment. While not monitoring, the NRCS provides baseline soils data (GIS and database) from both the STATSGO and SSURGO programs.

STATSGO: Soil maps for the State Soil Geographic (STATSGO) database are produced by generalizing the detailed soil survey data. The mapping scale for STATSGO is 1:250,000. STATSGO data are available for the entire United States.

SSURGO: Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. Mapping scales generally range from 1:12,000 to 1:63,360; SSURGO is the most detailed level of soil mapping done by the Natural Resources Conservation Service (NRCS). Parks with available SSURGO data = CAHA, FORA, WRBR, CUIS, FOFR, TIMU, FOCA, CHAT (except Fulton county), KEMO.

Other baseline cartographic products available from the NRCS include: DEM, DRG, DLG, DOQQ, NED, LIDAR, and climate data.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://www.ncgc.nrcs.usda.gov/products/>

US Geological Survey, Coastal and Marine Geology Program

Sea Level Rise

Shoreline Erosion

Storm Events

Responsible Agency / Park:

US Geological Survey, Coastal and Marine Geology Program, National Assessment of Coastal Change Hazards

Relevant Parks:

CAHA, CALO, FOPU, FOSU, FOMO, FOFR, CUIS, TIMU, CANA

Period of Record:

Not Listed

Description:

The National Assessment of Coastal Change Hazards is a multi-year undertaking to identify and quantify the vulnerability of U.S. shorelines to coastal change hazards such as the effects of severe storms, sea-level rise, and shoreline erosion and retreat. It will continue to improve our understanding of processes that control these hazards, and will allow researchers to determine the probability of coastal change locally, regionally, and nationally. The National Assessment will deliver these data and assessment findings about coastal vulnerability to coastal managers, other researchers, and the general public.

Projects currently online include: 1) National Assessment of Shoreline Change, 2) Coastal Classification Mapping Project, 3) Hurricane and Extreme Storm Impact Studies, and 4) National Assessment of Vulnerability to Sea-level Rise.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://coastal.er.usgs.gov/national-assessment/index.html>

asallenger@usgs.gov

Marine & Estuarine Resources

FWC Fish and Wildlife Research Institute

Coastal Monitoring
Fish Kills
Manatees

Responsible Agency / Park:
FWC

Relevant Parks:
TIMU, FOCA, CASA, CANA

Period of Record:
1998-2002

Description:

The Fish and Wildlife Institute (FWRI) was created in July 2004 as an integration of the biological research and support staff of the FWC Division of Wildlife, Division of Freshwater Fisheries, and Florida Marine Research Institute. The FWRI focuses on spatial analyses, biostatistics and modeling, wildlife forensics, and socioeconomic work relative to Florida's natural resources. More specifically, the FWRI is charged with: (1) Monitoring marine and freshwater resources, wildlife, and habitats, (2) Developing and implementing techniques for restoring plant and animal species and their habitat, (3) Providing technical support when oil spills and human-related or natural disasters occur, (4) Monitoring red tides and providing technical support for state and local government public health concerns, and (5) Providing fish and wildlife research technical results to state and local governments. The FWRI is divided into five interrelated science sections: (1) Marine Fisheries Research, (2) Freshwater Fisheries Research, (3) Ecosystem Assessment and Restoration, (4) Wildlife Research, and (5) Information Science and Management.

The FWRI, in conjunction with the US Environmental Protection Agency, monitors several variables (e.g., water quality, sediment contaminants, SAV, etc.) as indicators of status and trends of ecosystem processes. The FWRI also monitors red tide occurrences and sport-fish stock assessments to evaluate ecosystem function.

Date Last Updated:
Ongoing

Catalog Number:

More Information:

http://www.floridamarine.org/features/category_main.asp?id=1714

Georgia Adopt-A-Stream

Coastal Monitoring

Responsible Agency / Park:
Georgia Department of Natural Resources

Relevant Parks:
FOPU, FOFR, CUIS

Period of Record:
Ongoing

Description:

Georgia Adopt-A-Stream (AAS) is housed in the NonPoint Source Program in the Water Protection Branch of the Georgia Environmental Protection Division. The program is funded by a Section 319(h) Grant. The goals of Georgia Adopt-A-Stream are to (1) increase public awareness of the State's nonpoint source pollution and water quality issues, (2) provide citizens with the tools and training to evaluate and protect their local waterways, (3) encourage partnerships between citizens and their local government, and (4) collect quality baseline water quality data.

To accomplish these goals, Georgia Adopt-A-Stream encourages individuals and communities to monitor and/or improve sections of streams, wetlands, lakes or estuaries. Manuals, training, and technical support are provided through Georgia EPD, five Adopt-A-Stream Regional Training Centers and more than 40 established Community/Watershed Adopt-A-Stream organizers. The Adopt-A-Stream and Wetland Regional Training Centers are located at State Universities in Columbus, Milledgeville, Americus, Valdosta and Savannah. These centers play a key role in providing training, technical support and organizational support to citizens throughout Georgia.

There are more than 40 Community/Watershed Programs that organize Adopt-A-Stream groups in their watershed, county or city. These local Adopt-A-Stream programs are funded by counties, cities and nonprofit organizations and use the Georgia Adopt-A-Stream model, manuals and workshops to promote nonpoint source pollution education and data collection in their area. The State office works closely with these programs to ensure that volunteers are receiving appropriate support and training.

The Adopt-A-Stream program offers different levels of involvement. At the most basic level, a new group informs their local government about their activities

and creates partnerships with local schools, businesses and government agencies. A watershed survey and 4 visual surveys are conducted within a year's time. Volunteers create a "Who To Call List" so that if something unusual is sighted, the appropriate agencies can be notified. Getting To Know Your Watershed and Visual Stream Survey manuals provide guidance in these activities.

Date Last Updated:

Unknown

Catalog Number:

More Information:

http://www.riversalive.org/coastal_monitoring.htm

**North Carolina Wildlife Resources Commission,
Division of Marine Fisheries, Fish Harvest
Statistics**

Fisheries

Fish Harvest

Responsible Agency / Park:

North Carolina Wildlife Resources Commission,
Division of Marine Fisheries

Relevant Parks:

CAHA, CALO

Period of Record:

Commercial Fishing: 1972 – Present (ongoing)

Recreational Fishing: 1989 – Present (ongoing)

Description:

The North Carolina Division of Marine Fisheries (DMF) is responsible for the stewardship of the state's marine and estuarine resources. The DMF's jurisdiction encompasses all coastal waters and extends to three miles offshore.

To accurately determine the status of a fish stock, managers must determine: age structure of the stock, age at spawning, average number of eggs each age fish can produce, ratio of males to females in a stock, number of new fish entering the catchable population, rate at which fish die from natural causes, rate at which fish are harvested, growth rate of the fish, time and the place fish spawn, migratory habits and food habits for all ages of fish in the stock, types and numbers of fishermen in a fishery, pounds of fish caught by each type of gear, fishing effort expended with each type of gear, age structure of the fish caught by each group of fishermen, ratio of males to females in the catch, value of the fish to different

groups of fishermen, preferred size of the catch for market, and time and place where the best catches occur.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://www.ncfisheries.net/statistics/index.html>

**National Oceanic and Atmospheric
Administration (NOAA), National Estuarine
Research Reserve System**

Estuarine Water Quality

Responsible Agency / Park

NOAA

Relevant Parks:

CAHA, CALO, CANA, CASA, CUIS, FOCA,
FOFR, FOMA, FOPU, FORA, FOSU, TIMU,
WRBR

Period of Record:

Ongoing

Description:

The National Estuarine Research Reserve System is a network of protected areas established for long-term research, education and stewardship. This partnership program between NOAA and the coastal states protects more than one million acres of estuarine land and water, which provides essential habitat for wildlife; offers educational opportunities for students, teachers and the public; and serves as living laboratories for scientists.

Data from this program may be used as reference values for intact estuarine systems.

Date Last Updated:

2004

Catalog Number:

More Information:

<http://nerrs.noaa.gov/>

<http://cdmo.baruch.sc.edu/>

NOAA Marine Protected Areas

Marine Inventory

Responsible Agency / Park

NOAA

Relevant Parks:

CAHA, CALO, CANA, CUIS, TIMU

Period of Record:

2000

Description:

The National Marine Protected Areas (MPA) Center's mission is to facilitate the effective use of science, technology, training, and information in the planning, management, and evaluation of the nation's system of marine protected areas. Their goals are to: (1) Develop the framework for a national system of marine protected areas, (2) Improve MPA stewardship and effectiveness, and (3) Facilitate national and regional coordination of MPA activities.

Marine protected areas serve many different purposes and are established for a variety of reasons. The term MPA has been used in many ways as well. Those impacted by or interested in MPAs have varying perceptions on the value and use of MPAs. This website's purpose is to provide information and resources that assist in national dialog and decision-making about MPAs.

No data currently exist for SECN parks, however, this site may prove valuable in the future.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://mpa.gov>

NOAA National Ocean Service (NOS)

Coastal Ecosystem Science
Coastal Management
Oil and Chemical Spills
Shoreline Mapping
Tides/Currents/Water Levels
Algal Blooms

Responsible Agency / Park:

NOAA

Relevant Parks:

CAHA, CALO, CANA, CUIS, TIMU

Period of Record:

Variable

Description:

The NOS is one of five offices of the NOAA in the U.S. Department of Commerce (DOC). It is a scientific and technical organization of more than 1,700 individuals whose mission is to preserve and enhance the nation's coastal resources and ecosystems along 95,000 miles of shoreline and 3.5 million square miles of coastal ocean. At the same time, it works to support economic growth for the long-term benefit of the nation. This theme is central to the sustainable development agenda of both NOAA and DOC.

The NOS website provides a substantial amount of data available for download. Record length of datasets varies.

Date Last Updated:

Ongoing

Catalog Number:**More Information:**

<http://oceanservice.noaa.gov/dataexplorer/datasites/welcome.html>

Estuarine Living Marine Data Base

Fish (relative abundance)

Invertebrates (relative abundance)

Responsible Agency / Park:

NOAA

Relevant Parks:

CANA

Period of Record:**Description:**

In 1985, NOAA launched the Estuarine Living Marine Resources (ELMR) Program to develop a consistent data base on the distribution, relative abundance, and life history characteristics of ecologically and economically important fishes and invertebrates in the Nation's estuaries. The Nationwide ELMR data base includes information for 153 species found in 122 estuaries and coastal embayments. The data base is divided into five study regions - West Coast, Gulf of Mexico, Southeast, Mid-Atlantic, and North Atlantic. For each species, five life stages are considered - adults, juveniles, larvae, spawning, and eggs - with some exceptions. Each estuary is subdivided into one to five salinity zones. Relative abundance is ranked by month for

each life stage of each species, in each salinity zone of each estuary (Nelson et al. 1991, Nelson and Monaco 2000).

ELMR relative abundance data can be downloaded from this website, by using the search keys for Region, Estuary, Species, Life Stage, and Salinity Zone.

Last Updated:

Catalog Number:

More Information:

<http://biogeo.nos.noaa.gov/products/elmr/>

Indian River Lagoon National Estuarine Program

Water Quality
Sea Grass Communities
Tidal Salinity

Responsible Agency / Park:

NOAA
Saint Johns Water Management District

Relevant Parks:

CANA

Period of Record:

Description:

This project will continue the ambient water quality and seagrass monitoring networks and the hydrologic and tidal/salinity monitoring networks. The project also will support special diagnostic and feasibility investigations such as identifying the major components of suspended matter that limit light to sea grass, identifying other seagrass limiting factors besides light, developing new rapid monitoring technologies with the help of the National Aeronautic and Space Administration (NASA), and supporting the NASA Space Act Agreement database. Through this project, existing models will be refined for the purpose of enhancing accuracy and predictive capabilities such as the quantification of groundwater and atmospheric nutrient loadings to the lagoon.

Date Last Updated:

Unknown

Catalog Number:

More Information:

Salt Marsh Health Assessment

Water Quality
Oyster Tissue Chemistry / Toxicity
Sediment Chemistry / Toxicity

Responsible Agency / Park:

Savannah State University

Relevant Parks:

FOPU

Period of Record:

Description:

Date Last Updated:

Unknown

Catalog Number:

More Information:

Southeast Monitoring Assessment Program (SEAMAP)

Fish & Invertebrates

Responsible Agency / Park:

U.S. National Marine Fisheries Service

Relevant Parks:

All Coastal SECN Parks

Period of Record:

1981 – Present (and ongoing)

Description:

The Southeast Area Monitoring and Assessment Program (SEAMAP) is a State/Federal/university program for collection, management and dissemination of fishery-independent data and information in the southeastern United States. In the South Atlantic region, surveys include Shallow Water Trawl Survey, Pamlico Sound Survey, Benthic Characterization, and Bottom Mapping Project. The SEAMAP provides guidance, personnel, and other contributions to these studies for enhancement and protection of the marine resources.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://www.gsmfc.org/seamap.html>

National Oceanic and Atmospheric

Administration – CoastWatch

Sea Surface Temperature

Responsible Agency / Park:

National Oceanic and Atmospheric Administration,
Center for Coastal Fisheries and Habitat, CoastWatch
Program

Relevant Parks:

CAHA, CALO, FOSU, FOPU, FOFR, CUIS, TIMU,
FOMA, CASA, CANA

Period of Record:

Not Listed

Description:

The National Oceanic and Atmospheric Administration established the CoastWatch Southeast Regional Node at the Center for Coastal Fisheries and Habitat Research in Beaufort, North Carolina. The purpose of the Southeast Regional Node is to develop and distribute NOAA satellite and oceanographic data products for the U.S. Southeast coast to academic and governmental researchers, managers and policy makers – at no charge.

The data products currently available to users through the CoastWatch Southeast Regional Node (CWSERN) are sea surface temperature map (SST) maps derived from digital images acquired by the Advanced High Resolution Radiometer (AVHRR) carried onboard the NOAA polar orbiting satellites. The images are projected to a Mercator map projection. The images provide partial to full coverage of the southeast from northern North Carolina to Florida several times daily depending on the orbital paths of the satellites.

Near real time data for the Southeastern United States are available to users at this site. User that do not require near real-time data may access retrospective imagery through NOAA CoastWatch Archive and Access System (NCAAS). Data derived from the NOAA satellites may be accessed by researchers, state and Federal government employees, and the general public who use the data for non-commercial purposes.

Date Last Updated:

Unknown

Catalog Number:

More Information:

Real Time: <http://www.ccfhrb.noaa.gov/cw/se-info.html>

Legacy: <http://www.saa.noaa.gov/nsaa/products/welcome>

Georgia Coastal Resources Monitoring

Georgia Coastal Resources Information

Marine Water Quality Monitoring

Tide and Weather Information

Fishing License Information

Responsible Agency / Park:

Georgia Department of Natural Resources: Coastal
Resources Division – Coastal Management Program

Relevant Parks:

CUIS, FOFR, FOPU

Period of Record:

Ongoing

Description:

Recognizing that the coast of Georgia comprises a vital natural resource system, the State of Georgia implemented the Georgia Coastal Management Program in order to balance economic development with preservation of coastal resources. Developed through an extensive public process, the Georgia Coastal Management Program addresses the economic development concerns and natural resource issues identified by the citizens of Georgia. For effective coastal management, the Georgia Coastal Management Program encompasses all tidally influenced water bodies and all areas economically tied to coastal resources. Georgia's Coastal Management Program service area includes the following eleven counties: Brantley, Bryan, Camden, Charlton, Chatham, Effingham, Glynn, Liberty, Long, McIntosh, and Wayne.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://crd.dnr.state.ga.us/>

South Carolina Coastal Resources Monitoring

Beach Erosion Monitoring

Responsible Agency / Park:

South Carolina Department of Health and Environmental Control / Ocean and Coastal Resource Management

Relevant Parks:

CHPI, FOSU

Period of Record:

Ongoing since 1988

Description:

Following passage of the 1988 Beachfront Management Act, the Coastal Council established a beach-monitoring program at approximately 400 survey benchmarks along the coast. Each benchmark, a metal disk set in concrete, has a known vertical elevation which is used as the starting point for the beach survey. In addition, the horizontal coordinates of each benchmark have been established, so the benchmark can be replaced in the same location if it is ever destroyed. The information from this beach-monitoring program was used to delineate the position of the baseline, set at either the actual dune crest for natural beaches or the theoretical dune crest for armored beaches. With grant support from the US Geological Survey, this monitoring program collects beach profiles at all stations twice a year to a depth of -5 feet, as a surveyor wades into chest-deep water at low tide. In addition, offshore profiles to a depth of -20 feet are collected annually at selected stations, using a submersible survey rig towed by a boat.

Date Last Updated:

June 15th, 2004

Catalog Number:**More Information:**

<http://www.scdhec.net/eqc/ocrm/HTML/beach.html>

RADAR Ocean Sensing Laboratory

Sea Surface Currents

Coastal Circulation

Responsible Agency / Park:

University of Miami – Division of Applied Marine Physics of the Rosenstiel School

Relevant Parks:

All Coastal SECN Parks

Period of Record:

Not Listed

Description:

The RSMAS Radar Ocean Sensing Laboratory (ROSL) is an interdisciplinary research group primarily based in the Division of Applied Marine Physics of the Rosenstiel School, but with additional members in Meteorology and Physical Oceanography. Its research efforts involve the use of a land-based Doppler radar to measure surface vector currents in the coastal ocean and airborne and satellite observations of different radar sensors such as wind speed and direction from scatterometers [SEASAT, ERS-1 and NSCAT], wave height and wind speed from altimeters [SEASAT, GEOSAT, ERS-1 and TOPEX/POSEIDON], and directional wave spectra and backscatter images from synthetic aperture radars [JPL/INSAR, SEASAT, and ERS-1]. The research and graduate education of ROSL complements the satellite oceanography activities of the Remote Sensing Group.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://www.rsmas.miami.edu/groups/rosl/>

Recreational Use

South Carolina Fishing and Hunting

Fisheries
Fish Harvest
Stream Flow
Wildlife Management

Responsible Agency / Park:

South Carolina Department of Natural Resources

Relevant Parks:

CONG, FOSU

Period of Record:

Ongoing

Description:

This agency provides a variety of fresh and saltwater fishing information and hunting information for the state of South Carolina. For fishing, data and information are available on fishing regulations, fishing trends, records, tournaments, Fish Watch, and streamflow and lake elevation graphs. For hunting, there are links to South Carolina hunting rules and regulations, hunting license and application forms, and a variety of wildlife management information pertinent to hunting.

Date Last Updated:

Variable

Catalog Number:**More Information:**

Fishing: <http://www.dnr.state.sc.us/etc/fishing.html>

Hunting: <http://www.dnr.state.sc.us/etc/hunting.html>

Boating, Fishing, and Hunting in Georgia

Fisheries
Fish Harvest
Fish Kills
Exotic/Invasive Species

Responsible Agency / Park:

Georgia Department of Natural Resources / Wildlife Resources Division

Relevant Parks:

CHAT, KEMO, OCMU, FOPU, FOFR, CUIS

Period of Record:

Unknown

Description:

Links to rules, regulations, permit and license information, records, surveys and other information related to hunting, fishing, and boating in Georgia.

To follow are descriptions of each section found on the website.

Boating: Information provided includes boating rules and regulations, boat ramp locations, boater safety, and boat registration.

Fishing: This section links to fisheries management, fishing regulations, fish kill reporting, aquatic nuisance species, fish consumption information, weekly fishing reports, fishing license information, and fisheries publications, research and surveys.

Hunting: Look here for hunter education and licenses, hunting seasons and regulations, publications, research and surveys, and other hunting related information.

Date Last Updated:

Variable depending on the data set.

Catalog Number:**More Information:**

<http://georgiawildlife.dnr.state.ga.us/>

Visitor Use Impacts – National Park Service

Visitor Use Impacts

Responsible Agency / Park:

National Park Service

Relevant Parks:

All SECN Parks

Period of Record:

Varied

Description:**Date Last Updated:**

Unknown

Catalog Number:**More Information:**

T&E Species

Alabama Natural Heritage Program:

Federal and State T&E Species

Responsible Agency / Park:

Alabama Department of Conservation and Natural Resources, the Natural Heritage Section is a program of the State Lands Division.

Relevant Parks:

HOBE

Period of Record:

Not listed.

Description:

The Alabama Natural Heritage Program maintains a current inventory of plant and animal biological records for the state of Alabama. The database is GIS compatible and records are obtained from state and federal reports, professional publications, and field survey's conducted by in house staff. Currently the database has over 250,000 records and this information is available upon request and is free of charge.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://www.dcnr.state.al.us/research-mgmt/heritage.cfm>

Florida Department of Agricultural and Consumer Services

State-listed T&E plants

Responsible Agency / Park:

FDACS

Relevant Parks:

TIMU, FOCA, CASA, CANA

Period of Record:

2003

Description:

The mission of the Department of Agriculture and Consumer Services (FDACS) is to safeguard the public and support Florida's agricultural economy by: (1) Ensuring the safety and wholesomeness of food and other consumer products through inspection and testing programs; (2) Protecting consumers from unfair and deceptive business practices and providing consumer information; (3) Assisting Florida's farmers and agricultural industries with the production and promotion of agricultural products; and (4)

Conserving and protecting the state's agricultural and natural resources by reducing wildfires, promoting environmentally safe agricultural practices, and managing public lands.

The FDACS maintains a current list of federal and state-listed T&E and commercially exploited plant species.

Date Last Updated:

2003

Catalog Number:

More Information:

<http://www.doacs.state.fl.us/pi/enpp/botany/images/Notes2003.pdf>

Florida Department of Forestry (FDOF)

Federal-listed T & E Plant Species

FDOF T & E Plant Species Management Plans

Responsible Agency / Park:

FDOF

Relevant Parks:

TIMU, FOCA, CASA, CANA

Period of Record:

Ongoing

Description:

The Florida Plant Conservation Program originated in 1992 to work toward the recovery of federally-listed endangered and threatened plant species in Florida.

The goal of the Florida Plant Conservation Program is to restore and maintain existing populations of listed plants on public land and on private lands managed for conservation purposes. Previous or ongoing projects address demography, monitoring, reintroduction, germination, pollination, and other aspects of population ecology.

Date Last Updated:

Unknown

Catalog Number:

More Information:

http://www.fl-dof.com/Conservation/plant_program.html

Florida Natural Areas Inventory:

Federal and State T&E Species

Responsible Agency / Park:

Florida Natural Areas Inventory, Florida State University

Relevant Parks:

FOCA, TIMU, CASA, FOMA, CANA

Period of Record:

Not Listed.

Description:

FNAI is a non-profit organization administered by Florida State University. They are dedicated to gathering, interpreting, and disseminating information critical to the conservation of Florida's biological diversity. The Inventory was founded in 1981 as a member of The Nature Conservancy's international network of natural heritage programs. Funding is provided through contracts and grants, which currently include work for the Florida Department of Environmental Protection, the Florida Fish and Wildlife Conservation Commission, and other state and federal agencies.

Inventory staff continually build and maintain a comprehensive database of the biological resources of Florida, which now includes more than 28,000 element occurrences of rare plants, rare animals, and high-quality natural communities. These occurrences are maintained in a GIS database for mapping and analysis.

The Inventory also serves as the primary source for information on Florida's conservation lands. The Inventory database includes GIS boundaries and statistics for more than 1,400 federal, state, local, and private managed areas. The database also includes information on Florida Forever environmental land acquisition projects.

Inventory staff have expertise in a range of fields, including botany, zoology, ecology, land management, environmental planning, GIS, and database management.

FNAI is the best source for information regarding Florida's T & E species.

For information about data requests, contact Edwin Abbey, Environmental Reviewer.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://www.fnai.org/>

<http://www.fnai.org/data.cfm>

Florida Natural Areas Inventory
1018 Thomasville Road, Suite 200-C
Tallahassee, Florida 32303
Phone: (850) 224-8207
Fax: (850) 681-9364

Florida Fish and Wildlife Conservation Commission (FWC)

Federal- and State-listed T&E animal species

Responsible Agency / Park

FWC

Relevant Parks:

TIMU, FOCA, CASA, CANA

Period of Record:

Ongoing

Description:

The FWC was created in 1998 as a combination of the Marine Fisheries Commission and specific components of the Divisions of Marine Resources and Law Enforcement of the Florida Department of Environmental Protection. As the state agency responsible for managing Florida's fish and wildlife resources, the FWC is responsible for managing approximately 4.3 million acres of public lands and 220,000 acres of private lands for recreation and conservation purposes. Further, the FWC develops hunting and fishing regulations, manages a fresh-fish culture and stock program, provides law enforcement and fishing access, and conducts lake restoration.

The FWC maintains a list of federal-and state-listed T&E animal species, management plans, and research/monitoring programs for various listed species.

Date Last Updated:**Catalog Number:****More Information:**

<http://wildflorida.org/imperiled/species.htm>

FWC Fish and Wildlife Research Institute

Sea Turtles

Responsible Agency / Park

FWC

Relevant Parks:

TIMU, FOCA, CASA, CANA

Period of Record:

Ongoing

Description:

The Fish and Wildlife Institute (FWRI) was created in July 2004 as an integration of the biological research and support staff of the FWC Division of Wildlife, Division of Freshwater Fisheries, and Florida Marine Research Institute. The FWRI focuses on spatial analyses, biostatistics and modeling, wildlife forensics, and socioeconomic work relative to Florida's natural resources. More specifically, the FWRI is charged with: (1) Monitoring marine and freshwater resources, wildlife, and habitats, (2) Developing and implementing techniques for restoring plant and animal species and their habitat, (3) Providing technical support when oil spills and human-related or natural disasters occur, (4) Monitoring red tides and providing technical support for state and local government public health concerns, and (5) Providing fish and wildlife research technical results to state and local governments. The FWRI is divided into five interrelated science sections: (1) Marine Fisheries Research, (2) Freshwater Fisheries Research, (3) Ecosystem Assessment and Restoration, (4) Wildlife Research, and (5) Information Science and Management.

The FWRI staff conducts research on the distribution, productivity, migration patterns, life history, and threats to sea turtles. Productivity data are available online by coastal region.

Date Last Updated:

Ongoing

Catalog Number:**More Information:**

http://www.floridamarine.org/features/category_main.asp?id=1289

http://www.floridamarine.org/features/category_sub.asp?id=3618

Georgia Natural Heritage Program:

Federal and State Listed T&E Species

Responsible Agency / Park:

Georgia Department of Natural Resources, Nongame Animals and Plants, Division of Natural Heritage.

Relevant Parks:

FOPU, FOFR, CUIS, OCMU, CHAT, KEMO

Period of Record:

Not Listed.

Description:

The Georgia Natural Heritage Program (GNHP) was established in 1986 through a cooperative agreement between the Georgia Department of Natural Resources (DNR) and The Nature Conservancy. Information from scientific literature, museum and herbarium collections, knowledgeable individuals, and scientific research organizations is utilized extensively to document occurrences of particular elements within the state. Field surveys are then conducted to verify these occurrences. The biological inventory thus represents a continuous, ongoing process whose product, a detailed atlas of Georgia's natural diversity, is constantly updated and revised.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://georgiawildlife.dnr.state.ga.us/content/displaycontent.asp?txtDocument=87>

Greg Krakow

Georgia Natural Heritage Program

2117 US Hwy 278 SE

Social Circle, GA 30025-4714

(770) 918-6411 or (706) 557-3032

North Carolina Natural Heritage Program:

Federal and State Listed T&E Species

Responsible Agency / Park:

The North Carolina Natural Heritage Program is a part of the Office of Conservation and Community Affairs within the NC Department of Environment and Natural Resources.

Relevant Parks:

CAHA, WRBR, FORA, CALO, MOCR

Period of Record:

Not Listed.

Description:

The North Carolina Natural Heritage Program provides natural area and rare species information to landowners, consulting firms, local, state, and federal agencies, as well as conservation organizations and

private citizens. To request information about a specific site, please submit: (1) A cover letter describing the proposed activity, including existing vegetation cover, structures at the site, and the type of data requested, and (2) A photocopy of a portion of a USGS topographic map with the project area clearly outlined and the name of the quadrangle used.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://www.ils.unc.edu/parkproject/nhp/index.html>

North Carolina Natural Heritage Program
Office of Conservation and Community Affairs
601 MSC, Raleigh, NC 27699
512 North Salisbury St., Raleigh, NC 27604
phone: (919) 715-4195
fax: (919) 715-3085

South Carolina Natural Heritage Trust

Federal and State Listed T&E Species

Responsible Agency / Park:

The South Carolina Department of Natural Resources
Heritage Trust Program

Relevant Parks:

CONG, CHPI, FOMO, FOSU

Period of Record:

Not Listed.

Description:

The South Carolina Heritage Trust Program was created to preserve those natural features and cultural remains which are fast disappearing as the state grows. The South Carolina Heritage Trust's purpose is to inventory, evaluate, and protect the elements considered the most outstanding representatives of our state heritage. The Heritage Trust Database contains rare, endangered and threatened species occurrences, a literature file that is organized by county on places with rare or significant habitats, ecosystem features such as rock outcrops, limestone sinks, Carolina bays, and old-growth forests are described. This information is continuously updated as new occurrences are being found and old populations are disappearing. This database was formed from field reports, herbarium collection records, publications, and knowledgeable experts.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://www.natureserve.org/nhp/us/sc/>

<http://www.dnr.state.sc.us/etc/conservation.html>

Status of Carolina Bogmint at CONG

State Listed T&E Species

Responsible Agency / Park:

US Geological Survey – Biological Resources
Division and Clemson University

Relevant Parks:

CONG

Period of Record:

Description:

This project seeks to determine the health, extent and reproductive characteristics of the Carolina Bogmint population at Congaree National Park.

Date Last Updated:

Unknown

Catalog Number:

More Information:

Dr. Patrick Jodice -

<http://people.clemson.edu/~pjodice/>

Ms. Kate Manry - <http://people.clemson.edu/~kmanry>

US Fish and Wildlife Service, Endangered Species

Federally Listed T&E Species

Responsible Agency / Park:

US Fish and Wildlife Service, Endangered Species
Program

Relevant Parks:

All SECN parks

Period of Record:

Not Listed

Description:

Restoring endangered and threatened species to a secure status in the wild is a key objective of the U.S. Fish and Wildlife Service. The Endangered Species web site has information on threatened and endangered wildlife and plants and lists of threatened and endangered species by state. There is no actual monitoring data available through this website; we

will have to contact US FWS directly to pursue any data that may be available.

The U.S. Fish and Wildlife Service and the NOAA Fisheries Service (National Oceanic and Atmospheric Administration National Marine Fisheries Service) Office of Protected Resources work together to protect species listed as endangered or threatened under the Endangered Species Act of 1973. We implement programs and regulations for terrestrial and freshwater species, while NOAA Fisheries is charged with marine and anadromous species.

Date Last Updated:

Unknown

Catalog Number:

More Information:

Main website: <http://endangered.fws.gov/>

Southeast Region: <http://southeast.fws.gov/>

GIS: <http://southeast.fws.gov/gis/datalinks.htm>

Biological: <http://www.fws.gov/data/gisbio.html>

Historical Assessment of Carolina Bogmint and other Rare and/or Invasive Plants - CONG

Federal and State Listed T&E Plant Species

Exotic/Invasive Species

Responsible Agency / Park:

University of South Carolina

Relevant Parks:

CONG

Period of Record:

Variable by Species

Description:

This project seeks to create a palynological reference collection to be used to assess the historical distribution of selected rare and/or exotic invasive plant species.

A related project by the same investigators will assess the distribution and composition of rim swamp sediments through analysis of core samples.

Date Last Updated:

Unknown

Catalog Number:

More Information:

Dr. Art Cohen: cohen@geol.sc.edu

David Shelley: shelleyd@mailbox.sc.edu

Vegetation

Florida Department of Agricultural and Consumer Services

Plant Diseases/Pathogens (Pest-Alert)

Responsible Agency / Park
FDACS

Relevant Parks:
TIMU, FOCA, CASA, CANA

Period of Record:
Ongoing

Description:
The mission of the Department of Agriculture and Consumer Services (FDACS) is to safeguard the public and support Florida's agricultural economy by: (1) Ensuring the safety and wholesomeness of food and other consumer products through inspection and testing programs; (2) Protecting consumers from unfair and deceptive business practices and providing consumer information; (3) Assisting Florida's farmers and agricultural industries with the production and promotion of agricultural products; and (4) Conserving and protecting the state's agricultural and natural resources by reducing wildfires, promoting environmentally safe agricultural practices, and managing public lands.

Date Last Updated:

Catalog Number:

More Information:
<http://www.doacs.state.fl.us/pi/enpp/pi-pest-alert.html>

FWC Fish and Wildlife Research Institute
Seagrasses

Responsible Agency / Park
FWC

Relevant Parks:
TIMU, FOCA, CASA, CANA

Period of Record:
Ongoing

Description:
The Fish and Wildlife Institute (FWRI) was created in July 2004 as an integration of the biological research and support staff of the FWC Division of Wildlife, Division of Freshwater Fisheries, and Florida Marine Research Institute. The FWRI focuses on spatial analyses, biostatistics and modeling, wildlife forensics, and socioeconomic work relative

to Florida's natural resources. More specifically, the FWRI is charged with: (1) Monitoring marine and freshwater resources, wildlife, and habitats, (2) Developing and implementing techniques for restoring plant and animal species and their habitat, (3) Providing technical support when oil spills and human-related or natural disasters occur, (4) Monitoring red tides and providing technical support for state and local government public health concerns, and (5) Providing fish and wildlife research technical results to state and local governments. The FWRI is divided into five interrelated science sections: (1) Marine Fisheries Research, (2) Freshwater Fisheries Research, (3) Ecosystem Assessment and Restoration, (4) Wildlife Research, and (5) Information Science and Management.

As seagrass communities play a key ecological role, their preservation and restoration is a key issue for the FMRI. The FWRI is currently investigating several functions (e.g., seed bank mortality, nutrient flow, etc.) of seagrass systems in order to acquire necessary knowledge to improve management and preservation and facilitate restoration.

Date Last Updated:

Catalog Number:

More Information:
http://www.floridamarine.org/features/category_main.asp?id=1323

The Institute for Systematic Botany Atlas of Florida Vascular Plants
Range Maps for Vascular Flora of Florida

Responsible Agency / Park
University of South Florida

Relevant Parks:
TIMU, FOCA, CASA, CANA

Period of Record:
Ongoing

Description:
The Atlas of Florida Vascular Plants is a joint effort by the Institute of Systemic Botany, the University of South Florida and the Florida Center for Community Design and Research to provide users with the most comprehensive searchable database of vascular plants in the State of Florida.

Date Last Updated:

Ongoing

Catalog Number:**More Information:**

<http://www.plantatlas.usf.edu/>

Effects of Altered Flow Regimes on Floodplain Forests - CONG

Floodplain Forest Communities

Responsible Agency / Park:

Southern Illinois University – Dr. Peter Minchin
University of Georgia – Dr. Rebecca Sharitz

Relevant Parks:

CONG

Period of Record:**Description:**

This project seeks to detect changes in the composition and distribution of bottomland hardwood forest tree species resulting from the hydrological changes of the Saluda Dam.

Date Last Updated:**Catalog Number:****More Information:**

<http://www.uga.edu/srel/ESSite/Sharitz.htm>

<http://www.science.siu.edu/plant-biology/Adjunct/Minchin.html>

University of Georgia – Savannah River Ecology Lab

Disturbance
Plant Recovery Rates

Responsible Agency / Park:

UGA, SREL, PI is Rebecca Sharitz

Relevant Parks:

CONG

Period of Record:

Post 1989

Description:

River floodplain forests have been increasingly affected by human activities, including industrial and agricultural development and forest management practices. One component of our research addresses

structural and functional changes in wetland communities as a result of disturbances. For example, we have studied the effects of thermal discharges from industrial activities on the Savannah River Site (SRS) into streams, and the potential to restore these damaged riparian systems.

We are also examining the effects of natural disturbances such as floods and winds. The destruction by Hurricane Hugo in 1989 to one of our study sites, the Congaree National Park, has provided a rare opportunity to examine immediate and long-term forest recovery in one of the few old-growth floodplain forests in the Southeast. Specific studies are examining tree mortality patterns, regrowth, and the effects of environmental heterogeneity on woody seedling recruitment. This research is partly funded by the US National Park Service.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://www.uga.edu/srel/ESSite/Sharitz.htm>

Modeling Forest Succession and Surface Hydrology at CONG

Forest Succession
Surface Hydrology

Responsible Agency / Park:

US Geological Survey – National Wetlands Research Center

Relevant Parks:

CONG

Period of Record:**Description:**

This project will develop a flood prediction and ecological succession model for Congaree National Park.

Date Last Updated:**Catalog Number:****More Information:**

Dr. Thomas Doyle -

<http://www.nwrc.usgs.gov/about/feb/doyle.htm>

Vegetation Photopoint Monitoring – FOPU

Photopoints

Responsible Agency / Park:

FOPU

Relevant Parks:

FOPU

Period of Record:

1998 to Present

Description:

Photos are taken at 12 established photopoints, twice per year, to track changes in vegetation over time.

Date Last Updated:

Catalog Number:

More Information:

Sea Beach Amaranth Monitoring – CALO

Responsible Agency / Park:

CALO

Relevant Parks:

CALO

Period of Record:

Description:

Date Last Updated:

Catalog Number:

More Information:

Sea Beach Amaranth Monitoring – CAHA

Responsible Agency / Park:

CAHA

Relevant Parks:

CAHA

Period of Record:

1996 – Present (Ongoing)

Description:

Surveys for seabeach amaranth (*Amaranthus pumilus*) were conducted at Cape Hatteras National Seashore. Seabeach amaranth plants were found growing on Hatteras Island within designated bird closures in upper dry sand flats at the Cape Hatteras Point (Cape Point and South beach), in small dunes adjacent to the flats at Hatteras Island spit and on Ocracoke Island at the base of the dunes on the beach.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://www.nps.gov/caha/nathistory.htm>

Botanical Guardians Project

Rare or locating lost plant populations
Endangered habitats

Responsible Agency / Park:

Georgia Plant Conservation Alliance

Relevant Parks:

CHAT, KEMO, OCMU, FOPU, FOFR, CUIS

Period of Record:

Ongoing since 2003

Description:

The Georgia Plant Conservation Alliance (GPCA) is creating a network of volunteers from throughout the state of Georgia to help locate lost rare plant populations, monitor known locations of endangered habitats, and serve as stewards for the 21 rare habitats under powerline right-of-ways. The State Botanical Garden's Plant Conservation Program is charged with the task of coordinating this network. The program, called the Botanical Guardians project, is modeled after a successful volunteer program developed by the New England Wildflower Society (NEWFS). New England's program, launched in 1999, has trained nearly 400 volunteers to monitor rare plant populations, assist in management of these sites, and identify and control invasive plant species.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://www.uga.edu/gpca/project6.html>

South Carolina Plant Atlas

Plant Distributions in South Carolina

Responsible Agency / Park:

University of South Carolina, Department of Biological Sciences, John Nelson, Curator

Relevant Parks:

FOSU, CHPI, CONG

Period of Record:

1970's – Ongoing (went online in 1994)

Description:

The purpose of the South Carolina Plant Atlas is to show, on a county by county basis, the distribution of all native and naturalized ferns, fern allies, gymnosperms, and angiosperms of South Carolina. All distributional information is based on the presence of at least one verified herbarium specimen; non-vouchered records have not been used. The presence of a species in a county is indicated by a dot, and the dot is positioned at the centroid of that county; the maps in this Atlas suggest no other geographical distribution.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://cricket.biol.sc.edu/herb/>

Savannah Restoration - MOCR

Vegetation Monitoring

Responsible Agency / Park:

National Park Service - MOCR

Relevant Parks:

MOCR

Period of Record:**Description:**

Following a prescribed burn at MOCR, native grasses were planted towards the restoration of savannah habitat. Vegetation monitoring plots were established to assess the success of revegetation efforts.

Date Last Updated:

Unknown

Catalog Number:**More Information:****Horse Exclosure Monitoring – CUIS****Responsible Agency / Park:**

CUIS

Relevant Parks:

CUIS

Period of Record:**Description:**

Management of the horses at Cumberland Island National Seashore (CUIS) continues to be a highly controversial and political issue within the community, district, and region. The park needs to collect data on the horses to insure that management of the horses may be based as much as possible on proper scientific data. The use of horse exclosures will help the park determine the effects of horses upon vegetation at Cumberland Island.

Date Last Updated:**Catalog Number:****More Information:**

Vertebrate Disease

National Biological Information Infrastructure (NBII) – Wildlife Diseases

Wildlife Disease

Responsible Agency / Park:

NBII – Wildlife Diseases

Relevant Parks:

All SECN parks

Period of Record:

Not Listed – real time access to disease information

Description:

The Wildlife Disease Information Node is a Web-based monitoring and information system, providing state and federal resource managers, animal disease specialists, veterinary diagnostic laboratories, physicians, public health workers, educators, and the general public with access to near real-time data in wildlife mortality events and other critical related information.

The major objectives of the Wildlife Disease Information Node include:

Documenting the prevalence and spread of wildlife diseases at the most discrete spatial and temporal levels possible via a nationwide Web-based reporting system

Maintaining current databases on wildlife mortality events and other critical information

Providing Web access to wildlife and zoonotic disease information for management, research, epidemiological, and educational purposes

Providing Web access to the general public for educational purposes and to disseminate information on the importance of wildlife and zoonotic diseases and related ecosystem and community effects

Developing partnerships to share wildlife mortality and other critical information in a distributed fashion and in a secure, partner-based data system.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://wildlifedisease.nbii.gov/>

Florida Department of Agricultural and Consumer Services

Vertebrate Diseases

Zoonotic Diseases

Responsible Agency / Park

FDACS

Relevant Parks:

TIMU, FOCA, CASA, CANA

Period of Record:

Ongoing

Description:

The mission of the Department of Agriculture and Consumer Services (FDACS) is to safeguard the public and support Florida's agricultural economy by: (1) Ensuring the safety and wholesomeness of food and other consumer products through inspection and testing programs; (2) Protecting consumers from unfair and deceptive business practices and providing consumer information; (3) Assisting Florida's farmers and agricultural industries with the production and promotion of agricultural products; and (4) Conserving and protecting the state's agricultural and natural resources by reducing wildfires, promoting environmentally safe agricultural practices, and managing public lands.

Date Last Updated:**Catalog Number:****More Information:**

<http://www.doacs.state.fl.us/ai/>

US Geological Survey (USGS), Biological Resource Division, National Wildlife Health Center

Wildlife Disease

Responsible Agency / Park

USGS

Relevant Parks:

All SECN parks

Period of Record:

Ongoing

Description:

The (NWHC) is a science center of the Biological Resources Discipline of the United States Geological Survey. The NWHC was established in 1975 as a biomedical laboratory dedicated to assessing the

impact of disease on wildlife and to identifying the role of various pathogens in contributing to wildlife losses.

Date Last Updated:

Ongoing

Catalog Number:

Date Last Updated:

Ongoing

Catalog Number:

More Information:

<http://www.aphis.usda.gov/ws/index.html>

More Information:

http://www.nwhc.usgs.gov/about_nwhc/index.html

US Department of Agriculture, Animal and Plant Health Inspection Service – Wildlife Services

Wildlife Disease

Human, Wildlife Interaction

Wildlife Damage

Human Health

Responsible Agency / Park

USDA, APHIS, Wildlife Services

Relevant Parks:

All SECN parks

Period of Record:

Ongoing

Description:

Wildlife Services (WS) is the program within APHIS that is dedicated to preventing or reducing conflicts between people and wildlife. Every day State agencies, county and municipal governments, private homeowners, farmers, ranchers, and other property owners rely on WS' expertise to help prevent, minimize, or manage wildlife damage. This damage can impact agriculture, property, natural resources, and even threaten public health and safety. Research conducted at WS' National Wildlife Research Center (NWRC) provides WS field personnel with innovative and effective tools to manage wildlife damage in a professional and responsible way.

With this support, WS biologists handle a broad spectrum of issues for their customers and stakeholders. These activities include: protecting livestock and threatened and endangered species from predation by other wildlife, reducing the risk of wildlife collisions with airplanes, removing beaver dams that are flooding nearby roads and bridges, and monitoring for and reducing the threat of various wildlife-borne diseases that can spread to domestic livestock or even people.

Waste Management

Waste Management in South Carolina

Solid waste management
Environmental Indicators

Responsible Agency / Park:

South Carolina Department of Health and
Environmental Control / Bureau of Land and Waste
Management

Relevant Parks:

CONG, FOSU, CHPI

Period of Record:

Unknown

Description:

SCDHEC Bureau of Land and Waste Management's site provides information on solid waste management including the EPA's Environmental Indicator Summaries for South Carolina. Tables summarizing the EI evaluations for the 34 high-priority facilities in South Carolina are available. The table lists the name of the facility, the county in which it is located, and the status of the two environmental indicators. There is also a link from the facility name to a copy of the Environmental Indicator Evaluations for the particular facility.

Date Last Updated:

2004

Catalog Number:

More Information:

<http://www.scdhec.net/lwm/>

Wetlands

National Wetlands Inventory

National Scale Wetlands Information

Responsible Agency / Park:

U.S. Fish and Wildlife Service

Relevant Parks:

All SECN Parks

Period of Record:

Ongoing

Description:

Wetlands are mapped to show their current status, and updated or sampled to show their trends of losses or gains. Once wetlands are mapped, many types of wetland assessment can be performed. Wetland assessment is used for many activities: monitoring wetland health, making permit decisions, targeting voluntary wetland restoration activities, maintaining biodiversity, restoring species, measuring mitigation success, undertaking watershed management, developing wetland classifications, protecting public water supplies, implementing local land use plans and so on.

The U.S. Fish and Wildlife Service's National Wetlands Inventory (NWI) provides information on the status, extent, and characteristics of the nation's wetlands. Digital maps, GIS data, and information about obtaining hard copy maps are available through this website. GIS data are downloadable in zipped shapefile format, geodatabase format, or Arc Data format in both single quad and 1:250,000 scales. Some geographic areas are not yet available in all file format types.

Date Last Updated:

2004

Catalog Number:

More Information:

<http://wetlands.fws.gov/>

Wildlife – Bird

American Oystercatcher Breeding – CAHA

Responsible Agency / Park:

CAHA

Relevant Parks:

CAHA

Period of Record:

1999 – Present (and ongoing)

Description:

The breeding activities of American Oystercatchers (*Haematopus palliatus*) were monitored at Cape Hatteras National Seashore (CAHA). By the first week in April, traditional nesting territories were protected with symbolic fencing. Additional sites were posted as these solitary-nesting birds established territories.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://www.nps.gov/caha/nathistory.htm>

Acoustic Monitoring for Endangered Birds and Amphibians – CONG

Responsible Agency / Park:

Cornell University Lab of Ornithology

Relevant Parks:

CONG

Period of Record:

2004 - ongoing

Description:

This project seeks to document the presence of Bachman's warbler and other wildlife species of special management concern. Additional goals include quantifying aircraft over-flight noise at the park.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://www.birds.cornell.edu/brp>

Dr. Kurt Fristrup: kmf6@cornell.edu

Tel: (607)254-2438

Jay Watch

Florida Scrub Jay

Responsible Agency / Park

The Nature Conservancy and Archbold Biological Research Station

Relevant Parks:

CANA

Period of Record:

Ongoing

Description:

The Nature Conservancy and Archbold Biological Research Station organize a volunteer-based monitoring program of Florida Scrub Jay (*Aphelocoma coerulescens*) to estimate productivity and habitat use.

Date Last Updated:**Catalog Number:****More Information:**

Contact Tabitha Biehl: tbiehl@tnc.org

<http://nature.org/wherewework/northamerica/states/florida/press/press1459.html>

<http://www.ridgerangers.org/jwatch/>

Audubon – Christmas Bird Counts

Bird Population Monitoring

Responsible Agency / Park:

State or local chapters of the Audubon Society

Relevant Parks:

All SECN parks.

Period of Record:

Variable.

Description:

Audubon's mission is to conserve and restore natural ecosystems, focusing on birds, other wildlife, and their habitats for the benefit of humanity and the earth's biological diversity. Our national network of community-based nature centers and chapters, scientific and educational programs, and advocacy on behalf of areas sustaining important bird populations, engage millions of people of all ages and backgrounds in positive conservation experiences.

Bird monitoring occurs in the form of Christmas Bird Counts, Backyard Bird Counts, and local birding efforts.

Date Last Updated:

Unknown

Catalog Number:

More Information:

HOBE: No local Audubon chapter listed

TIMU/FOCA: <http://www.duvalaudubon.org/>

FOMA/CASA: <http://members.aol.com/sjaudubon/>

CANA: <http://www.indianriveraudubon.org/>

CHAT/KEMO: <http://www.atlantaudubon.org/>

OCMU: bob.sargent@robins.af.mil

FOPU: <http://www.geocities.com/coastalgas/>

CUIS, FOFR: No local Audubon chapter listed

CAHA, FORA, WRBR, CALO, MOCR:

<http://www.ncaudubon.org/>

CONG: <http://www.columbiaaudubon.org/>

Mid-winter Bird Survey – CUIS

Responsible Agency / Park

Relevant Parks:

CUIS

Period of Record:

Description:

Date Last Updated:

Catalog Number:

More Information:

Colonial Waterbird Breeding – CAHA

Responsible Agency / Park:

CAHA and North Carolina Wildlife Resource Commission

Relevant Parks:

CAHA

Period of Record:

1977 – Present (Ongoing)

Description:

Colonial waterbird nesting sites are monitored along Cape Hatteras National Seashore (CAHA). Species breeding on the Seashore beaches this year include Least Tern (*Sterna albifrons*), Common Tern (*Sterna hirundo*) and Gull-billed Tern (*Gelochelidon nilotica*), as well as Black Skimmers (*Rynchops niger*). All are listed as Species of Concern in North Carolina except for Gull-billed Tern having Threatened status (North Carolina Heritage Program, 2003). Breeding activity occurred between May and August. In many cases, birds utilized areas already closed to the public for breeding, including American Oystercatchers (*Haematopus palliatus*) and Piping Plover (*Charadrius melodus*). In other areas, symbolic fencing was erected once birds were observed exhibiting courtship behavior or nests were found.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://www.nps.gov/caha/nathistory.htm>

Monitoring Avian Productivity & Survivorship (MAPS)

Bird Monitoring

Bird Habitat

Responsible Agency / Park:

Institute for Bird Populations

U.S. Geological Survey / Biological Res. Div.

SC Department of Natural Resources (John E. Cely)

Relevant Parks:

CONG

Period of Record:

1980 – Present

Description:

The Institute for Bird Populations (IBP) has become a partner with the United States Geological Survey (USGS) / Biological Resources Division (BRD) in the National Biological Information Infrastructure (NBII) web-based electronic information network. This has allowed IBP to make available on-line the annual reports of the MAPS (Monitoring Avian Productivity and Survivorship) program. Previously these data have been published only in IBP's peer-reviewed publication *Bird Populations*. This avian

demographics query interface includes the following components:

1. Regional between-year changes in adult population size and productivity indices for target species from analyses of MAPS banding data (1992-1998).
2. Regional annual adult apparent survival rate estimates for target species from mark-recapture analyses of MAPS data (1992-1998).
3. MAPS Station information:
 - a. Geographic locations and operating history of MAPS stations operated during the years 1989-2000.
 - b. Brief habitat descriptions summarized from the MAPS Habitat Structure Assessment data collected at each station. This includes USGS National Vegetation Classification Standard classifications of major habitat types to formation level.
4. Breeding status of each species captured, seen, or heard at each station during the years 1989-2000.
5. IBP ensures that species names provided through the web-based query interface conform to the taxonomic nomenclature provided by the Integrated Taxonomic Information System (ITIS)
6. Metadata. IBP has developed metadata records for the MAPS database and geospatial data layers that are made available electronically. Metadata records follow the format of the Biological Data Profile of the FGDC Metadata Content Standard.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://www.birdpop.org/nbiimaps.htm>

<http://www.birdpop.org/nbii/NBIIHome.asp>

Partners in Flight:

Bird Population Monitoring
Bird Habitat

Responsible Agency / Park:

Partners in Flight

Relevant Parks:

All SECN parks

Period of Record:

Post 1990

Description:

Partners in Flight was launched in 1990 in response to growing concerns about declines in the populations of many land bird species and in order to emphasize the conservation of birds not covered by existing conservation initiatives. Partners in Flight's goal is to focus resources on the improvement of inventory and monitoring, research, management and education programs involving birds and their habitat.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://www.partnersinflight.org/>

PIF Southeast Region Coordinator:

Laurel Moore-Barnhill

(803) 725-1034

lamoree@fs.fed.us

Piping Plover Monitoring at CALO

Piping Plovers

Responsible Agency / Park:

National Park Service (CALO)

Relevant Parks:

CALO

Period of Record:

1989 – Present (ongoing)

Description:

Piping plover monitoring at Cape Lookout National Seashore (CALO) began with a baseline study in 1989. The park is a significant nesting area with about 2/3 of the nesting pairs in the state of North Carolina. Monitoring focuses on factors limiting nesting success and methods that could be used to increase the productivity of this threatened species. Counts of wintering and migrating piping plovers were made monthly (Cordes and Rikard 2003b).

Date Last Updated:

Unknown

Catalog Number:

More Information:
Piping Plover Breeding – CAHA

Responsible Agency / Park:
CAHA

Relevant Parks:
CAHA

Period of Record:
1989 – Present (Ongoing)

Description:
Cape Hatteras National Seashore (CAHA) oversees Piping Plover (*Charadrius melodus*) breeding management. Beginning in early April, beaches were surveyed for plover activity. These surveys included sites that had been previously used for nesting as well as those deemed suitable but had no nesting documented in recent years. When plovers exhibited territorial or courtship behavior, the sites were investigated for the presence of nests. If none were found, the territories were revisited every two to seven days in attempts to locate newly initiated nests.

Potential and known breeding sites were closed to the public in late March. Each area was surrounded by symbolic fencing, which consisted of posted signs and twine. All located nests were protected by predator exclosures. These have been used at CAHA since 1994. Nests were viewed from a distance every one or two days during incubation. Observers noted the behavior of adults, presence of predators and the condition of the predator exclosure. Nests were approached briefly once a week to closely inspect the exclosure, count eggs and search for any predator tracks. After hatching, each brood was monitored at one or two day intervals. Observers noted brood status, behavior, movements, human disturbance, predator contacts or other environmental interactions.

Date Last Updated:
Unknown

Catalog Number:

More Information:
<http://www.nps.gov/caha/nathistory.htm>

National Biological Information Infrastructure (NBII) – Bird Conservation Node

Bird Populations
Bird Habitat

Responsible Agency / Park:
NBII – Bird Conservation Node

Relevant Parks:
All SECN parks

Period of Record:
Varied, depending upon dataset

Description:
In an effort to increase the accessibility of bird data and information useful in planning and evaluation of bird conservation strategies as well as in natural resource management, the U.S. Fish and Wildlife Service (USFWS), U.S. Geological Survey (USGS) Patuxent Wildlife Research Center, and USGS Center for Biological Informatics are working together under the umbrella of the National Biological Information Infrastructure (NBII) to establish and implement the NBII Bird Conservation Node. This node is intended to facilitate rapid access to North American bird population and habitat data maintained by a broad coalition of Federal, state, and non-governmental partners in conservation.

The NBII Bird Conservation Node, which came online in the fall of 2001, focuses on providing electronic access to some of the major bird monitoring and habitat databases held in North America. The node will initially emphasize delivery of raw and derived bird population data held by the USGS and USFWS Migratory Bird Data Center. But as the node grows, it will link to North American bird data sets and information maintained and managed by other partners.

Date Last Updated:
Unknown

Catalog Number:

More Information:
Main: <http://birdcon.nbii.gov/>
Data Links: http://birdcon.nbii.gov/monitoring_links.html

US Geological Survey – Waterbird Monitoring Partnership
Waterbird Populations

Responsible Agency / Park:

USGS – Patuxent Wildlife Research Center

Relevant Parks:

CAHA, WRBR, FORA, CALO, FOSU, FOFR, CUIS, TIMU, FOMA, CANA

Period of Record:

Mid-1990's – present (ongoing)

Description:

Individuals across the continent are often faced with decisions that influence waterbird populations. Although some waterbirds have been counted for decades, numerous survey methodologies have been implemented over different spatial scales, resulting in data sets that cannot be compared. Too often, monitoring programs have been initiated without any thought given to future data use. The Waterbird Conservation for the Americas initiative, of which the North American Waterbird Conservation Plan is one product, has identified the need to establish a Waterbird Monitoring Partnership. The goal of the Waterbird Monitoring Partnership is to develop a continental network of collaborators who agree to and implement comparable population monitoring techniques and contribute to a centrally managed waterbird database. This continent-wide waterbird monitoring partnership is being coordinated by the USGS Patuxent Wildlife Research Center's Monitoring Program.

The waterbird monitoring database is made possible by the participation of monitoring partners throughout the Americas, who conduct surveys of waterbirds and voluntarily contribute their data to this centralized location. As of May 2002, this database contains data from the coastal surveys conducted in the mid 1990s from Maine to Georgia, funded by the US Fish and Wildlife Service, in addition to information published in a number of colonial waterbird atlases in the United States and Canada. In the near future, data from the Cornell Waterbird Register and the US Fish and Wildlife Service-sponsored Great Lakes waterbird surveys will become available. Over time, the utility of the database will grow, as partners throughout the Americas contribute data.

Date Last Updated:

Not Listed

Catalog Number:**More Information:**

Main: <http://www.pwrc.usgs.gov/cwb/>

Data Link: <http://www.pwrc.usgs.gov/cwb/database/>

US Fish and Wildlife Service – Division of Migratory Bird Management:

Migratory Bird Populations

Responsible Agency / Park:

US Fish and Wildlife Service – Division of Migratory Bird Management

Relevant Parks:

All SECN parks

Period of Record:

Varied, depending upon dataset

Description:

The Fish and Wildlife Service is the lead Federal agency for managing and conserving migratory birds in the United States. The Division of Migratory Bird Management is charged with carrying out the Service's responsibilities, which it does in concert with a host of participating partners, both domestic and foreign.

Monitoring programs are an important part of responsible management. Only through knowledge of the status and trends of a species, and the habitats in which it occurs, can managers take appropriate actions. Monitoring efforts are numerous and varied, and are undertaken by a wide variety of organizations. The Office of Migratory Bird Management undertakes a number of surveys in conjunction with the U.S. Fish and Wildlife Regional Offices, the Canadian Wildlife Service, and State and Provincial wildlife-management agencies.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

Main website: <http://migratorybirds.fws.gov/>

List of Monitoring Programs:

<http://migratorybirds.fws.gov/statsurv/mntrtbl.html>

Contact email: migratorybirds@fws.gov

US Geological Survey – Patuxent Wildlife Research Center:

Breeding Bird Populations

Responsible Agency / Park:

US Geological Survey – Patuxent Wildlife Research Center, Breeding Bird Survey

Relevant Parks:

The following routes are close to the park or within the park.

HOBE – AL route 51

CANA – FL route 25, 915

CHAT – GA route 42

CAHA – NC route 229, 129

MOCR – NC route 4, 285

Period of Record:

Late 1980's (depending upon the dataset and route)

Description:

Each year during the height of the avian breeding season, June for most of the U.S. and Canada, participants skilled in avian identification collect bird population data along roadside survey routes. Each survey route is 24.5 miles long with stops at 0.5-mile intervals. At each stop, a 3-minute point count is conducted. During the count, every bird seen within a 0.25-mile radius or heard is recorded. Surveys start one-half hour before local sunrise and take about 5 hours to complete. Over 4100 survey routes are located across the continental U.S. and Canada.

Once analyzed, BBS data provide an index of population abundance that can be used to estimate population trends and relative abundances at various geographic scales. Trend estimates for more than 420 bird species and all raw data are currently available via the BBS web site.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

Main webpage: <http://www.pwrc.usgs.gov/bbs/>

Operations Contact: Keith Pardieck, email:

Keith_Pardieck@usgs.gov

Analyses Contact: John Sauer, email:

John_Sauer@usgs.gov

Wood Stork Monitoring – CUIS

Wood Stork Monitoring

Responsible Agency / Park:

Georgia Department of Natural Resources

Relevant Parks:

CUIS

Period of Record:**Description:****Date Last Updated:****Catalog Number:****More Information:****Neotropical Migratory Bird Monitoring - CONG**

Migratory Birds

Responsible Agency / Park:

South Carolina Department of Natural Resources

Relevant Parks:

CONG

Period of Record:**Description:**

To monitor neotropical migratory birds in order to document survival and productivity of these species in park forests.

Date Last Updated:**Catalog Number:****More Information:**

John Cely

Lower Cape Fear Birding Club

Bird Inventory

Responsible Agency / Park:

Lower Cape Fear Birding Club

Relevant Parks:

MOCR and perhaps CAHA, CALO

Period of Record:

1980 and ongoing

Description:

In the summer of 1979, Dr. James Parnell, Professor of Ornithology at the University of North Carolina at Wilmington, contacted the core of local birders and the Lower Cape Fear Bird Club was organized and

chartered in September of that year. Dr. Parnell conducted the first program on September 25, 1979, with the subject of "Fall Bird Migration".

The Lower Cape Fear Birding Club has worked with MOCR to generate and update their bird list. In addition, the birding club has birding events at MOCR and occasionally to the outer banks of North Carolina.

Date Last Updated:

Unknown

Catalog Number:

More Information:

Steve Emslie - Phone: (910) 962-3357

email: emslies@uncw.edu

<http://people.uncw.edu/emslies/CFbirdclub/index.htm>

Royal Terns (*Sterna maxima*) on the mid-Atlantic Coast in the Eastern U.S.

Royal Tern Research and Monitoring

Responsible Agency / Park:

Steven D. Emslie
Department of Biological Sciences
University of North Carolina
Wilmington, NC

Relevant Parks:

CAHA, CALO

Period of Record:

2001- 2003

Description:

The Royal Tern (*Sterna maxima*) is a large seabird that occurs along coastal regions in the Atlantic and eastern Pacific oceans where it forms dense breeding colonies on isolated beaches or islands. It migrates to Central and South America in winter, traveling as far south as the coasts of Peru and Argentina, before returning to breeding grounds to the north in early spring. In the mid-Atlantic region of the eastern U.S., Royal Terns breed primarily on dredge islands on rivers and estuaries from Maryland to Florida. In North Carolina, Royal Terns breed near inlets at Cape Hatteras, Cape Lookout, and on the Cape Fear River where it feeds primarily on larval fish that spawn in estuaries. At least five colonies are formed each year in these regions and number from hundreds to thousands of breeding pairs per colony. All colonies are protected from human disturbances by the North

Carolina Wildlife Resources Commission and the local chapter of the National Audubon Society.

In summer 1999, the author initiated investigations of Royal Terns with graduate and undergraduate students at UNCW. The primary focus of these investigations has been the foraging ecology of this species, especially in relation to fishery stock abundance and annual variation in the marine environment. Other studies have been on the impact of pollutants and toxic compounds ingested by adults and chicks near their breeding sites, annual variation in chick growth by colony, and sex ratios in adult and juvenile terns as determined by blood analyses.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://people.uncw.edu/emslies/terns/>

Wildlife – Fish

NatureServe – Native Fish Distribution by 8 Digit HUC

Native Fish Populations
Watershed

Responsible Agency / Park:

NatureServe

Relevant Parks:

All SECN parks

Period of Record:

Variable

Description:

NatureServe has compiled detailed data on the current and historic distributions of the native freshwater fishes of the United States, excluding Alaska and Hawaii. We believe these data are a useful tool for aquatic research and analyses and for conservation planning. Presented here are lists of the native fish species of each small watershed (8-digit cataloging unit) as defined by the U.S. Geological Survey.

These data derive in part from precise location data (element occurrences) compiled by state natural heritage programs for 307 vulnerable or imperiled U.S. fish species. The natural heritage-derived locational data were supplemented with information from the scientific literature and from species experts to compile the most complete distributional information possible for these species at the level of USGS 8-digit cataloging unit.

Analyses of these data were first presented in the report Rivers of Life: Critical Watersheds for Protecting Freshwater Biodiversity (1998) and were published in amended form in Precious Heritage: The Status of Biodiversity in the United States (2000). Subsequent funding from the Regina Bauer Frankenberg Foundation for Animal Welfare and from The Nature Conservancy allowed us to expand the database. The data were thus compiled over a period of several years (1997 to 2003).

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://www.natureserve.org/getData/dataSets/watershedHUCs/index.jsp>

FWC Fish and Wildlife Research Institute

Fish Kills

Responsible Agency / Park

FWC

Relevant Parks:

TIMU, FOCA, CASA, CANA

Period of Record:

1972 – Present

Description:

The Fish and Wildlife Institute (FWRI) was created in July 2004 as an integration of the biological research and support staff of the FWC Division of Wildlife, Division of Freshwater Fisheries, and Florida Marine Research Institute. The FWRI focuses on spatial analyses, biostatistics and modeling, wildlife forensics, and socioeconomic work relative to Florida's natural resources. More specifically, the FWRI is charged with: (1) Monitoring marine and freshwater resources, wildlife, and habitats, (2) Developing and implementing techniques for restoring plant and animal species and their habitat, (3) Providing technical support when oil spills and human-related or natural disasters occur, (4) Monitoring red tides and providing technical support for state and local government public health concerns, and (5) Providing fish and wildlife research technical results to state and local governments. The FWRI is divided into five interrelated science sections: (1) Marine Fisheries Research, (2) Freshwater Fisheries Research, (3) Ecosystem Assessment and Restoration, (4) Wildlife Research, and (5) Information Science and Management.

The FWRI has compiled a history of reported fish kills, dating back to early 1972. The database can be queried based on specific criteria (i.e., county, data, and probable cause). The FWRI uses these data to infer aquatic health and focus research activities.

Date Last Updated:

Ongoing

Catalog Number:**More Information:**

http://www.floridamarine.org/features/category_main.asp?id=1357

http://www.floridamarine.org/features/category_sub.asp?id=1697

South Carolina Fish Consumption Guides

Mercury, PCBs, Radioisotopes, and Organotins

Responsible Agency / Park:

South Carolina Department of Health and
Environmental Control (DHEC)
USGS-BRD (Thomas May)

Relevant Parks:

CONG, FOSU

Period of Record:

Ongoing

Description:

To make sure that the fish that are caught are safe to eat, DHEC tests fish from lakes, rivers, streams, and estuaries throughout South Carolina. All estuarine and Atlantic king and Spanish mackerel samples are collected jointly by DHEC and the S.C. Department of Natural Resources (DNR). Based on the data collected, DHEC issues fish consumption advisories, which have been issued in South Carolina since 1976. In South Carolina, mercury, polychlorinated biphenyls (PCBs), radioisotopes, and organotins have been found in some fish from some waterbodies. The contamination is only in the fish and does not make the water unsafe for skiing, swimming, or boating. This site links to seven separate advisory tables in PDF format as well as a complete listing, also in PDF format.

Date Last Updated:

Unknown

Catalog Number:

More Information:

<http://www.scdhec.net/eqc/admin/html/fishadv.html#tables>

Fish Diversity, Condition, and Effects of Flooding

Fish Health
Fish Diversity
Flooding

Responsible Agency / Park:

South Carolina Department of Natural Resources

Relevant Parks:

CONG

Period of Record:

Description:

This project seeks to document the composition and health of the fish community at CONG. In addition, this project will define the temporal and spatial changes in the fish community resulting from the record flood of 2003.

Date Last Updated:

Catalog Number:

More Information:

Dr. Jim Bulak:

http://www.dnr.state.sc.us/wild/freshfish/fwfi/jim_bulak.htm

Leo Rose:

http://www.dnr.state.sc.us/wild/freshfish/fwfi/leo_rose.htm

Mercury Input and Bioaccumulation - CONG

Mercury Contaminants
Bioaccumulation

Responsible Agency / Park:

US Geological Survey

Relevant Parks:

CONG

Period of Record:

Description:

This project will determine the extent of mercury within the aquatic communities of CONG, by sampling sediments, invertebrates, and fish.

Date Last Updated:

Catalog Number:

More Information:

Thomas May

Wildlife – Mammals

Florida Fish and Wildlife Conservation Commission (FWC)

Breeding Birds
Hunter Returns
Waterfowl Check-station Surveys
Turkey Status and Distribution

Responsible Agency / Park:
FWC

Relevant Parks:
TIMU, FOCA, CASA, CANA

Period of Record:
Varies

Description:

The FWC was created in 1998 as a combination of the Marine Fisheries Commission and specific components of the Divisions of Marine Resources and Law Enforcement of the Florida Department of Environmental Protection. As the state agency responsible for managing Florida's fish and wildlife resources, the FWC is responsible for managing approximately 4.3 million acres of public lands and 220,000 acres of private lands for recreation and conservation purposes. Further, the FWC develops hunting and fishing regulations, manages a fresh-fish culture and stock program, provides law enforcement and fishing access, and conducts lake restoration.

Date Last Updated:
2003

Catalog Number:

More Information:

<http://www.floridaconservation.org/>

Breeding Bird Atlas:

<http://wildflorida.org/bba/default.asp>

Waterfowl Check-station:

http://wildflorida.org/duck/Waterfowl_Surveys/waterfowl_surveys.htm

Alligator Harvest Data:

<http://wildflorida.org/gators/Default.htm>

Turkey Status and Distribution: <http://wildflorida.org/>

Other Hunter-returns Data by Request Only:

<http://wildflorida.org/hunting/default.html>

Horse Population Monitoring – CALO

Responsible Agency / Park:
CALO

Relevant Parks:
CALO

Period of Record:

Description:

Management of the horses at Cape Lookout National Seashore (CALO) continues to be a highly controversial and political issue within the community, district, and region. The park needs to continue to collect data on the horses to insure that management of the horses is based as much as possible on proper scientific data. The population of this herd is maintained by the coordinated use of an immunocontraceptive and horse removal. Contraceptive use is fertile ground for studies because of the unique situation including: (a) various patterns of use (a booster is administered each season conception is to be blocked), (b) the presence of non-contracepted control horses, and (c) the roundups necessary for removal of horses which also allows contraceptive antibody testing. Analysis of contraceptive data will be valuable for other NPS and BLM herds that have begun or will begin birth control programs.

Date Last Updated:
Unknown

Catalog Number:

More Information:

Horse Population Monitoring – CUIS

Responsible Agency / Park:
CUIS

Relevant Parks:
CUIS

Period of Record:

Description:

Management of the horses at Cumberland Island National Seashore (CUIS) continues to be a highly controversial and political issue within the community, district, and region. The park needs to collect data on the horses to insure that management

of the horses may be based as much as possible on proper scientific data.

Date Last Updated:

Catalog Number:

More Information:

Deer Monitoring

Population Count

Responsible Agency / Park:

Relevant Parks:

FOPU

Period of Record:

1998 – Present (ongoing)

Description:

Annual nighttime census of deer populations.

Date Last Updated:

Catalog Number:

More Information:

Feral Hog Population Monitoring – CONG

Responsible Agency / Park:

US Geological Survey – Biological Resources
Division and Clemson University

Relevant Parks:

CONG

Period of Record:

September 2000 – September 2002

Description:

This project will quantify feral hog impacts and develop a management plan and environmental assessment for long-term hog control

Date Last Updated:

Catalog Number:

More Information:

Dr. Craig Allen: <https://coopunits.org/People/craig.allen>

Scott Zengel: <https://coopunits.org/People/scott.zengel>

Southeastern Beach Mouse Monitoring

Responsible Agency / Park:

CANA, FOMA

Relevant Parks:

CANA, FOMA

Period of Record:

Description:

Date Last Updated:

Catalog Number:

More Information:

Marine Mammal Stranding Network

Marine Mammal Health

Environmental Contaminants

Responsible Agency / Park:

National Oceanic and Atmospheric Administration,
National Marine Fisheries Service, Office of
Protected Resources

Relevant Parks:

CANA, TIMU, CUIS, CAHA, CALO

Period of Record:

Description:

To respond to marine mammal strandings, volunteer stranding networks were established in all coastal states and are authorized through Letters of Authority from the NMFS regional offices. Through a National Coordinator and five regional coordinators, NMFS oversees, coordinates, and authorizes these activities and provides training to personnel. For a copy of the Level A data form.

In recent years, high concentrations of potentially toxic substances in marine mammals and an increase in new diseases have been documented, and scientists have begun to consider the possibility of a link between these toxic substances and marine mammal

mortality events. These studies contribute to a growing, worldwide effort of marine mammal biomonitoring not only to help assess the health and contaminant loads of marine mammals, but also to assist in determining anthropogenic impacts on marine mammals, marine food chains and marine ecosystem health. NMFS provides participants in the program with training and some financial support. Using strandings, and bycatch animals, the participants provide tissue/serum archiving, samples for analyses, disease monitoring and reporting and additional response during disease investigations.

Date Last Updated:

Catalog Number:

More Information:

http://www.nmfs.noaa.gov/prot_res/PR2/Health_and_Stranding_Response_Program/mmhsrp.html

Northern Right Whale Monitoring Program

Whale Monitoring

Responsible Agency / Park:

Marine Resources Council of Eastern Florida

Relevant Parks:

CANA, TIMU, FOCA, FOMA, CUIS

Period of Record:

1998 – Present (and Ongoing)

Description:

The endangered right whale utilizes the Atlantic Coast off Georgia and Florida as calving grounds. Volunteer spotters, living in high rise condos beachside report right whale sightings to track the whales' movement and behavior patterns along the Atlantic Coast in an effort to determine migration characteristics of these highly endangered marine mammals.

Date Last Updated:

Catalog Number:

More Information:

<http://www.mrcirl.org/whale/whale.html>

Wildlife – Reptiles & Amphibian

FWC Fish and Wildlife Research Institute

Sea Turtles

Responsible Agency / Park:

FWC

Relevant Parks:

TIMU, FOCA, CASA, CANA

Period of Record:

Ongoing

Description:

The Fish and Wildlife Institute (FWRI) was created in July 2004 as an integration of the biological research and support staff of the FWC Division of Wildlife, Division of Freshwater Fisheries, and Florida Marine Research Institute. The FWRI focuses on spatial analyses, biostatistics and modeling, wildlife forensics, and socioeconomic work relative to Florida's natural resources. More specifically, the FWRI is charged with: (1) Monitoring marine and freshwater resources, wildlife, and habitats, (2) Developing and implementing techniques for restoring plant and animal species and their habitat, (3) Providing technical support when oil spills and human-related or natural disasters occur, (4) Monitoring red tides and providing technical support for state and local government public health concerns, and (5) Providing fish and wildlife research technical results to state and local governments. The FWRI is divided into five interrelated science sections: (1) Marine Fisheries Research, (2) Freshwater Fisheries Research, (3) Ecosystem Assessment and Restoration, (4) Wildlife Research, and (5) Information Science and Management.

Date Last Updated:**Catalog Number:****More Information:**

http://www.floridamarine.org/features/category_main.asp?id=1289

Acoustic Monitoring for Endangered Birds and Amphibians – CONG

Responsible Agency / Park:

Cornell University Lab of Ornithology

Relevant Parks:

CONG

Period of Record:

2004 - ongoing

Description:

This project seeks to document the presence of Bachman's warbler and other wildlife species of special management concern. Additional goals include quantifying aircraft over-flight noise at the park.

Date Last Updated:

Unknown

Catalog Number:**More Information:**

<http://www.birds.cornell.edu/brp>

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Georgia Adopt-A-Stream

Amphibians

Responsible Agency / Park:

Georgia Department of Natural Resources

Relevant Parks:

All SECN Parks

Period of Record:

Ongoing

Description:

Georgia Adopt-A-Stream (AAS) is housed in the NonPoint Source Program in the Water Protection Branch of the Georgia Environmental Protection Division. The program is funded by a Section 319(h) Grant. The goals of Georgia Adopt-A-Stream are to (1) increase public awareness of the State's nonpoint source pollution and water quality issues, (2) provide citizens with the tools and training to evaluate and protect their local waterways, (3) encourage partnerships between citizens and their local government, and (4) collect quality baseline water quality data.

To accomplish these goals, Georgia Adopt-A-Stream encourages individuals and communities to monitor and/or improve sections of streams, wetlands, lakes or estuaries. Manuals, training, and technical support are provided through Georgia EPD, five Adopt-A-Stream Regional Training Centers and more than 40 established Community/Watershed Adopt-A-Stream organizers. The Adopt-A-Stream and Wetland

Regional Training Centers are located at State Universities in Columbus, Milledgeville, Americus, Valdosta and Savannah. These centers play a key role in providing training, technical support and organizational support to citizens throughout Georgia.

There are more than 40 Community/Watershed Programs that organize Adopt-A-Stream groups in their watershed, county or city. These local Adopt-A-Stream programs are funded by counties, cities and nonprofit organizations and use the Georgia Adopt-A-Stream model, manuals and workshops to promote nonpoint source pollution education and data collection in their area. The State office works closely with these programs to ensure that volunteers are receiving appropriate support and training.

The Adopt-A-Stream program offers different levels of involvement. At the most basic level, a new group informs their local government about their activities and creates partnerships with local schools, businesses and government agencies. A watershed survey and four visual surveys are conducted within a year's time. Volunteers create a "Who To Call List" so that if something unusual is sighted, the appropriate agencies can be notified. Getting To Know Your Watershed and Visual Stream Survey manuals provide guidance in these activities.

Date Last Updated:

Catalog Number:

More Information:

<http://www.riversalive.org/amphibians.htm>

Gopher Tortoise – CANA

Responsible Agency / Park:

CANA

Relevant Parks:

CANA

Period of Record:

Description:

CANA harbors one of the primary gopher tortoise populations in Florida. The tortoise is a keystone species; many other animals, including the federally threatened Eastern indigo snake, depend on its

burrows for shelter. Once widespread and abundant in the Southeast, it is now listed as federally Threatened in its western range (Alabama, Louisiana and Mississippi) and is declining rapidly in Florida, due to extensive habitat destruction, human predation and Upper Respiratory Tract Disease (URTD).

URTD, first noted in Florida in 1990, caused serious mortality in the desert tortoise of the Southwest, and resulted in its listing as a federally-protected species. A survey, done at CANA in the summer of 1995, revealed an alarming 100 percent infection in gopher tortoises collected in the Playalinda Beach area.

We use radio-telemetry to study the survival and movement patterns of neonate tortoises for two years. This is accomplished by locating and placing wire mesh cages over 5-10 gopher tortoise nests.

Following hatching, randomly select 2-3 hatchlings from each nest and fit with miniature transmitters.

Track hatchlings 2-4 days per week for a two year period to determine survivability and cause of death, if applicable. Although two years is still well short of maturity in gopher tortoises (15 years), two years of information will be adequate to characterize survival rates and movement patterns during the critical first 24 months of life. Record all locations with GPS unit. At each location, also record soil type, percent canopy cover, distance to nearest vegetation and distance from last sighting. All data will be entered on an Excel spreadsheet and in a GIS database.

Date Last Updated:

Unknown

Catalog Number:

More Information:

Gopher Tortoise Monitoring – TIMU

Responsible Agency / Park:

TIMU

Relevant Parks:

TIMU

Period of Record:

Description:

Date Last Updated:

Catalog Number:

More Information:

Sea Turtle Breeding and Stranding – CAHA

Responsible Agency / Park:
CAHA

Relevant Parks:
CAHA

Period of Record:
Not Listed

Description:
Cape Hatteras National Seashore (CAHA) beaches were patrolled daily between June 1 and September 1 in search of turtle crawls. Volunteers In the Park, Student Conservation Association volunteers and Park staff monitor approximately 55 miles each day on Bodie, Hatteras, and Ocracoke Islands.

Date Last Updated:
Unknown

Catalog Number:

More Information:
<http://www.nps.gov/caha/nathistory.htm>

Sea Turtle Monitoring – CALO

Responsible Agency / Park:
Cape Lookout National Seashore cooperates with numerous agencies, including the North Carolina Wildlife Resources Commission (NCWRC), the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) on sea turtle protection. The North Carolina Sea Turtle Program Coordinator receives all original stranding reports and annual nesting activity reports. NCWRC also issues Cape Lookout National Seashore an Endangered Species permit for possession and disposition of stranded marine turtles and relocation of nests.

Relevant Parks:
CALO

Period of Record:
1976 – Present (ongoing)

Description:
Cape Lookout National Seashore began monitoring marine turtles in 1976. Baseline data was collected for a portion of South Core Banks during an extensive six-year study from 1978 – 1983 (Cordes and Rikard 2003a). Nesting turtles were tagged and nests marked during nightly patrols. Since 1984 Cape Lookout has conducted daytime monitoring to document strandings, protect nest sites, relocate nests in danger of being flooded and protect hatchlings. Cape Lookout is a significant northern nesting beach and supports among the highest number of loggerhead turtle nests in North Carolina. Each year data have been collected, analyzed, and presented to management in hopes of better protecting our marine turtle population. In addition to providing CALO with management data, the information gathered on CALO beaches continues to be an important link for many state, federal, and private Atlantic coast sea turtle managers.

Date Last Updated:
Unknown

Catalog Number:

More Information:

Sea Turtle Nesting – CANA

Responsible Agency / Park:
CANA

Relevant Parks:
CANA

Period of Record:

Description:
Five species of sea turtles occur in Canaveral National Seashore (CANA) waters. All are federally classified as threatened or endangered. Three regularly nest on the park's 24 miles of beach averaging between 3500 and 4500 nests a year. The park offers turtle watch programs in June and July each year, escorting small groups of people to see a

loggerhead nest at night. Reservations are required and early requests are advised since the slots fill up quickly.

At CANA, the sea turtle nesting season for loggerhead and green sea turtles generally extends from late April to early September, with peak numbers occurring in late June and early July. During that time, up to 100 nests may be deposited a night. The leatherback nesting period is earlier and shorter, with nests recorded between April and June.

Date Last Updated:

Unknown

Catalog Number:

More Information:

Sea Turtle Nest Monitoring - CUIS:

Sea Turtles

Responsible Agency / Park:

CUIS

Relevant Parks:

CUIS

Period of Record:

Description:

Date Last Updated:

Catalog Number:

More Information:

Towson University – Reptiles and Amphibians

Reptile and Amphibian Populations

Disease Monitoring

Responsible Agency / Park:

Rich Seigel and Colleagues

Relevant Parks:

CANA

Period of Record:

1975 – Present (Ongoing)

Description:

Rich Seigel began collecting reptile and amphibian data at CANA as part of his graduate school work. He has continued to study reptiles and amphibians at CANA since that point in time. The SECN is working with Rich to capture all of his data collected at CANA and the surrounding Kennedy Space Center and Merritt Island National Wildlife Refuge.

Date Last Updated:

Unknown

Catalog Number:

More Information:

Rich Seigel

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Sea Turtle Stranding Network

Responsible Agency / Park:

National Oceanic and Atmospheric Administration,

National Marine Fisheries Service, Southeast

Fisheries Science Center

Relevant Parks:

CAHA, CALO, CUIS, TIMU, CANA

Period of Record:

Post-1980

Description:

The Sea Turtle Stranding and Salvage Network (STSSN) was formally established in 1980 to collect information on and document strandings of marine turtles along the U.S. Gulf of Mexico and Atlantic coasts. The network encompasses the coastal areas of the eighteen state region from Maine through Texas, and includes portions of the U.S. Caribbean. Data are compiled through the efforts of network participants who document marine turtle strandings in their respective areas and contribute those data to the centralized STSSN data base.

Date Last Updated:

Catalog Number:

More Information:

<http://www.sefsc.noaa.gov/seaturtleSTSSN.jsp>

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- Nelson, D. M., E. A. Irlandi, L. R. Settle, M. E. Monaco, and L. C. Coston-Clements. 1991. Distribution and abundance of fishes and invertebrates in Southeast estuaries. National Oceanic and Atmospheric Administration, ELMR Report No. 9, Rockville, Maryland.
- Nelson, D. M. and M. E. Monaco. 2000. National overview and evolution of NOAA's Estuarine Living Marine Resource (ELMR) Program. National Oceanic and Atmospheric Administration, Technical Memo NOS NCCOS CCMA-144.